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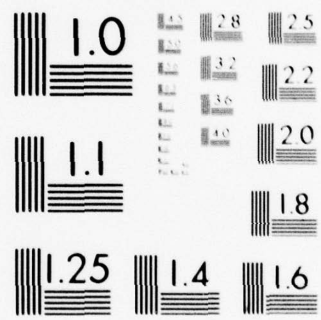
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NRL Memorandum Report 3931

Aerosol Particle Size Measurements at San Nicolas Island During CEWCOM-78

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March 9, 1979

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Washington, D.C.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

→ Particulate aerosol size spectra obtained during the CEWCOM-78 exercise (8-22 May 1978) at San Nicolas Island, California, are presented for the particle size range 0.7-45 μm diameter as measured with a PMS Axially Scattering Spectrometer Probe. In addition, an informal account of the daily meteorological and visibility conditions as observed visually from several vantage points on the island is given to help in the interpretation of the aerosol and optical data collected during the measurement session. These observations point out: 1) the need for slant path optical transmission measurements due to the generally strong, vertical gradient in visibility in the lowest 300m → next page

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20. Abstract (Continued)

or so above sea level, 2) the general susceptibility of Sites A and D to surf-generated aerosols and the additional susceptibility to dust for winds above 10m/sec, 3) the suitability of the upper two levels of the NRL tower for representative aerosol measurements except possibly during near calm wind conditions, 4) the suitability of SNI as a site for obtaining optical transmission measurements in maritime clouds, and 5) the existence of a newly observed phenomenon in which the downward vortex of air behind large, breaking or cresting waves in high wind situations prevents much of the crest-generated spray from becoming airborne. This mechanism may help explain the recently reported cases where the particle concentrations are lower and the visibilities are better in high wind situations than is to be expected from aerosol models where particle number densities increase indefinitely with wind speed.

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INTRODUCTION

During the period 8-26 May 1978, scientists from several Navy activities, private research organizations and universities collaborated in a multipurpose data gathering effort referred to as CEWCOM-78 (1978 Cooperative Experiment in West Coast Oceanography and Meteorology). The geographical area chosen for the measurements was San Nicolas Island (SNI) and vicinity. This island is the outermost of the Channel Islands of southern California, shown in Fig. 1.

One purpose of this CEWCOM exercise was to determine the extent to which the lower 300m or so of the atmosphere at SNI is representative of open ocean versus coastal conditions. Toward this end, a variety of atmospheric variables were measured at several shore stations on the windward side of the island, as well as from aboard a research ship and an instrumented aircraft. The principal shore station was a tower for micrometeorological measurements that was operated by the Atmospheric Physics Branch, Ocean Sciences Division of the Naval Research Laboratory (NRL). The atmospheric variables that were monitored at this site included particulate aerosol size spectra, turbulence characteristics, radon background radioactivity, and the usual meteorological variables such as air temperature, dew point, and wind speed, for example.

This present report contains data only on the aerosol size spectra obtained on the NRL tower. An appendix contains day-to-day observations by the author on the local meteorological conditions during the CEWCOM-78 exercise. As a result of these observations, several facts are emphasized that should be taken into account in the interpretation of measurements made at other locations on the island. These observations also have implications on the design and implementation of optical transmission experiments that are to be representative of slant paths or of lines of sight that are at various altitudes between sea level and 400 meters.

Reports and publications covering other aspects of the CEWCOM-78 measurements are forthcoming from the other researchers involved. In particular, the meteorological data obtained at the NRL tower are contained in the report by Blanc[1].

Note: Manuscript submitted December 26, 1978.

DESCRIPTION OF FIELD SITE AND APPARATUS

The NRL micrometeorological tower was located only 20m from the high tide waterline on the northwest point of SNI (see map in Fig. 2 and photo in Fig. 3). This location was chosen in order to be on the windward side of the island, as free from surf generated influences as possible, and to be near the optical transmission paths in use across nearby Laser Bay.

The 20m high tower (Fig. 4) was outfitted with instrumented booms at the 5m and 17m levels which correspond to 11 and 23m above mean sea level (msl), respectively. A complete description of the tower and the associated sensors, instruments, and mobile recording laboratory is given elsewhere[1]. The aerosol particle size spectrometer probe was located on a landing at the 20m (msl) elevation.

The aerosol sizing instrument was an Axially Scattering Spectrometer Probe (ASSP), a single particle optical counter manufactured by Particle Measuring Systems (PMS), Inc. This probe model is an <u>in situ</u> type originally designed for aircraft use. It has the advantage that the sampling volume is open to the environment so that isokinetic sampling is possible. This avoids the loss or modification of sampled particles that is possible in sensors where ducting is used to bring the sampled air into an interior sensitive volume.

In stationary, outdoor installations the probe is aspirated by natural wind advection through the sampling chamber. Proper sampling conditions are met as long as the probe inlet is kept oriented into the wind and the windspeed is at least 2 or 3 m/sec. An anemometer located within one or two meters of the probe provides the airspeed data required to compute the volume of air sampled by the probe during a given measuring interval. During calm or low wind conditions the probe is suction aspirated by connecting a length of 1 inch diameter tubing from the outlet side of the probe to the intake port of a variable speed blower. The blower is normally adjusted to provide an airspeed of 9.75m/sec through the probe sampling chamber. The corresponding volume flow rate through the sensitive portion of the particle illuminating laser beam is then $304 cm^3/min$. Suction produced (anisokinetic) air flow rates greater than this are known to involve the risk of distorting the shape of the particle size spectrum and artificially reducing the indicated particle number density.[2]

The ASSP was used to obtain as a function of time the total particle number density (number per cm^3) and the size spectrum (number per cm^3 per μm radius interval vs. particle size) over the particle size range of 0.7-46μm diameter. The ambient aerosol population at the 20m msl location was monitored continuously except for periods of maintenance and for two particle spectrometer comparison sessions at the Site A installation on the island. The ASSP has four, selectable, overlapping size ranges covering the interval 0.7 to 46μm in particle diameter. Each range is subdivided into fifteen particle size categories, or channels, as listed in Table 1. Particle counts were allowed to accumulate for 10, 30, or 60 seconds, depending on the rate of accumulation. At the end of each interval the counts in each channel of the range in use at that time were automatically recorded on digital magnetic tape. The probe was set to alternate between any two preselected ranges, with a given range being in use for a complete 10, 30, or 60 sec sampling interval. Ranges 4 and 2 were generally selected except when fog or heavy haze warranted the use of range 1 instead of range 2.

EXPLANATION OF DATA TABLE (Table II)

Listed in the main body of the table are values of dn/dr (number of particles per cm^3 per μm radius interval) computed from the ASSP particle counts averaged over 20 minute intervals. The particle radius associated with each column was arbitrarily chosen as the center of the corresponding particle size channel. Other representative radii can be chosen, however. For example, one may prefer to weight the range of radii within the channels by the population of particles in adjacent size channels.

The values of dn/dr are computed by use of the simple relationship

$$\frac{dn}{dr} = \frac{N}{VW} ,$$

where N is the recorded particle count accumulated in a given size channel during the sampling interval, V is the volume of air (cm^3) aspirated through the sensitive portion of the laser beam during this time, and W is the width of the size channel in terms of particle radius. The entries for dn/dr are expressed in computerized scientific notation where .14E+2, for example, represents the number 14.

Due to an intermittant data cable that was not repairable in the field, the units digit of the accumulated particle count in the size channels was often lost on the way to the magnetic tape recorder. This has no noticeable effect when the accumulated count in a given channel is greater than two hundred or so. However, an accumulated count of 99, for example, would frequently be recorded as only 90, resulting in about a 10% underindication of the true particle count. For size channels with fewer total counts the probable error is even greater.

This effect has been partially compensated by the use of the following restoration scheme in the computer processing.

(a) If the indicated, raw particle count is 200 or greater in a given size channel then no correction is made. This results in an error of 5% or less, depending on the magnitude of the indicated count.

(b) If the raw count is less than 200 <u>and</u> the units digit is zero (indicating the probable loss of the true units value), then the original count is replaced by the average of the counts in the same size channel during the measuring intervals immediately preceding and following the record in question. The corrected count is not allowed to differ from the original count in other than the units place, however. For example, if a computed average were to call for the replacement of an original count of 60 by a number larger than 69 or less than 60, the replacement value would be limited to 69 or 60, respectively.

The net result of this defect in data transmission is an underestimation of dn/dr generally for particle sizes larger than about 3μm radius. The described correction scheme restores lost counts with an accuracy close to the natural variation in particle count from one sample to the next, except for size channels where the accumulated count is frequently zero anyway. For the latter case where the average value computed to replace the raw count is zero more than 10% of the time during the twenty minute averaging period, the entries for dn/dr have been rounded to one significant digit in the tables as an indication that they are probably severely underestimated.

Finally, the assumptions involved in the ASSP calibration should be mentioned here. The threshold radii assigned to the various size channels correspond to the expected

probe response function[2] for water droplets of refractive index n=1.33. It is assumed that most of the maritime aerosol particles in the size range to which the ASSP is sensitive exist as solution droplets of sea salt or other soluble material at relative humidities greater than about 50%. It is further assumed that these droplets are sufficiently dilute that the actual refractive index is the same as for pure water. In any case, except possibly for strong Santa Ana conditions, realistic deviations from n=1.33 are likely to be small enough that an error of no more than one size channel will be made when the response curve for water droplets is used to determine the size of these particles. This amount of error is within the manufacturers claim of accuracy anyway.

ADDITIONAL INFORMATION AND OBSERVATIONS

1. Suitability of the Selected NRL Tower Site for Representative Sampling of Open Water Aerosols.

A principal question prior to this initial measurement exercise at SNI was whether any portion of the NRL tower would be above the influence of the spray generated in the nearby surf upwind of the tower. If not, then, of course, the particle size distributions would not be representative of populations over the open water in the nearby ocean.

It was found that the vertical extent of surf generated spray at the tower site could easily be observed at night with the use of a strong beam flashlight. To the dark adapted eye looking along the flashlight beam toward the night sky background, surf spray was manifested by puffs or patches of "backscatter" drifting with the wind across the beam. With more difficulty, this could also be done in the daytime by viewing upward along shafts of sunlight alongside the shadows formed by the legs and structural members of the tower. By standing with one's face in a shadow so that the sun's disc is barely hidden, puffs of spray can be seen drifting across the adjacent shaft of direct sunlight if the eye views upward toward a cloudless sky from a position just inside the shadow.

From the easier nighttime observations it was found that for windspeeds in excess of about 5m/sec, the puffs of surf generated spray did not reach the fourth landing (20m msl) where the ASSP was located. There was much patchiness and irregularity to the backscatter in the flashlight beam between the ground and the level of the first instrumented boom (11m msl). On the second and

third landings (14m and 17m msl, respectively) there were occasional "bursts" of aerosol crossing the beam, but at the fourth landing the backscatter in the beam was uniform and constant at a "background" intensity.

When the windspeed was less than one or two meters/sec, occasional puffs of backscatter could be seen in the flash-light beam even at the fourth platform level. Apparently the surf generated spray occasionally has time to diffuse and mix upward to this height by the time it has been advected to the location of the tower in these low wind conditions, or during conditions of extreme low tide.

2. Presence of Surf Generated Spray and Occasional Dust at OSP Site A.

Similar observations at Site A (Fig. 3) both at night and in the daytime revealed the general presence of "patches" of aerosol material being advected up the hill from the surf zone. These "patches" appeared to extend to heights well above any of the particle sensors, visibility meters, etc., that were installed at this location. Thus, it is expected that particle measurements made at this location and at Site D will indicate particle concentrations that are, on the average, too great to be representative of actual aerosol populations at the same height over open water or along the transmission path from Site A to Sites B or C (Fig. 2). Point measurements of visibility will also be affected.

From these observations it is also estimated that for winds no more westerly than NW, less than 5% of the length of the transmission path across Laser Bay will see this surf generated aerosol. However, for winds more westerly than this greater lengths of the transmission paths will be exposed.

During conditions of high NW winds (about 10m/sec and greater) dust may be picked up along the ground between the shore and Site A and blown across the Site A location. Thus the average particle count and indicated visibility as measured at Site A will not be representative of the nearby open water atmosphere under these conditions either.

3. The Need for Slant Path Visibility or Transmission Measurements.

If atmospheric condition at SNI are representative of maritime areas where the Navy may require optical tracking or sensing operations along slant paths through the lower few thousand feet of the atmosphere, visual observations at SNI show that there is an obvious need for measurements related to visibility along these slant paths.

On a number of occasions, as will be found from reading the daily meteorological notes in the Appendix, the visibility in this maritime location depends strongly on the height of the observer above sea level. For example, it was often found that when the atmosphere appeared quite hazy and the horizons were indistinct when viewed from the crest of SNI (270-300m msl), the visibility improved markedly as the observer descended the road to the shoreline. In such cases it was not unusual to find the horizons quite sharp and distinct and the distant haziness no longer detectable when viewed from near sea level. This effect is no doubt partly due to the fact that the apparent horizon is closer when viewed from sea level rather than from the crest of the island. A closer horizon will be less obscured by intervening haze. However, this altitude dependence of visibility is probably also due to the aerosol trapping effects and the increased relative humidity under the base of the inversions frequently present in this West Coast locality.

These observations emphatically demonstrate the need for slant path measurements of variables such as transmittance, aerosol size spectra, scattering coefficient, and relative humidity, at least, if Navy operations involving optical transmission along slant paths are contemplated. It is quite obvious that the present, horizontal transmittance measurements at a fixed height cannot be applied to slant path conditions or to other fixed altitudes.

4. Discrepancies Between Particle Counters in Use at SNI during CEWCOM-78.

Two informal, operational, particle counter comparison sessions were conducted at SNI during the CEWCOM exercise. The results of these comparisons has confirmed earlier experience[3,4] that there can be serious differences between particle spectrometers in terms of indicated values of dn/dr. These differences are illustrated in Fig. 5 where data are presented for two ASSP models that were operated simultaneously and were aspirated in an identical manner in a side-by-side location, for the comparison. The ASSP owned by the Naval Ocean Systems Center (NOSC)[5] is seen to indicate, for all particle sizes, values of dn/dr that are up to an order of magnitude smaller than those from the NRL owned ASSP. The data from an NRL owned Royco (model 225) and a PMS Classical Scattering Aerosol Spectrometer (CSAS) probe owned by General Dynamics, Inc., both operating nearby, tend to agree with the NRL ASSP. The Royco data[6] are added in Fig. 5 and the CSAS data[7] are in the graph shown in Fig. 6 for a later time. The CSAS has more scatter in this example due to a low sampling rate and a short sampling time during this separate comparison. The Royco has channel widths

that are rather wide for particle sizes larger than 3μm diameter so that the Royco measurements are not so well suited for display in a dn/dr format for the last three Royco channels as they are for the first two.

The NOSC owned ASSPs are equipped with a custom, signal delay circuit designed to compensate for the unusually long (15m) signal cable between the probe and the separate electronics module associated with these probes. It was discovered during the second comparison session at SNI that if this delay circuit feature is switched off, the accumulated particle counts increase by the order of magnitude needed to agree with the NRL ASSP. Thus, the delay circuitry normally in use with the NOSC ASSPs may inadvertantly depress the particle counts somehow in those probes. The exact cause of these differences in probe responses is not yet really understood, however.

Also, the effect of these apparent errors in dn/dr on items of interest such as computed scattering coefficients at various wavelengths, for example, is still being assessed. At least one future experiment is being planned as a result of these measuring discrepancies. It will involve simultaneous aerosol measurements by the NOSC and NRL ASSPs as well as several other particle counters in question, along with optical transmission measurements. Values of transmittance computed from size spectra indicated by the various particle spectrometers will then be compared to the directly measured transmittance to determine which of the particle counters are most accurate.

5. Observed Mechanism for <u>Suppression</u> of Sea Spray in High Winds.

In attempts to incorporate into computations of optical scattering coefficients an analytical description of aerosol size spectra as a function of meteorological variables, the windspeed dependence observed by Woodcock[8] has usually been accepted by most authors. Woodcock's measurements in the tradewind regime at Hawaii showed a regular increase with windspeed of the particle number density in all sizes larger than an equivalent 1μm radius at 80% relative humidity.* The mechanism is generally accepted to be increased foaming, cresting, and white capping of the waves as the windspeed increases, with the resulting spray being mixed upward by turbulence and perhaps convection.

*Hygroscopic particles such as sea spray will swell or shrink as the relative humidity increases or decreases. Thus, when size distributions as a function of other variables are to be compared, particle sizes measured under different humidity conditions should be adjusted by computation, if possible, to a fixed, reference value of relative humidity.

Recently, size spectra have been reported[9] from the North Atlantic which show a decreased number density at higher windspeeds, contrary to Woodcock's observations. Also, a recent analysis[10] of North Atlantic Weather Ship data has revealed that reported visibilities tend to be better at high windspeeds than lower, again contrary to general expectations based on Woodcock's observation and the wind-driven, sea spray production mechanism.

There are undoubtedly a number of factors involved simultaneously in determining the particle size spectrum or VSBY at a given location at a given time. These factors include sea surface bubble production (percent of surface covered by whitecaps, for example), atmospheric convective stability, turbulent transport and mixing efficiency, air mass history, and relative humidity. An additional, previously unreported mechanism was noted during the high wind conditions on May 15 at SNI, and may help account for the reduced amount of wave generated spray that gets mixed into the atmosphere under high wind conditions. The measurements and observations (see Met. notes for May 15 in the Appendix) on this day certainly fit the situation where the windspeed is high and whitecapping is widespread, but the aerosol particle count is low and the VSBY is excellent.

The newly observed mechanism involves the air stream trajectories near large, cresting waves. As the waves become larger and the crests higher and sharper, a lee vortex develops that drives crest-generated spray back down to the water. This effect is illustrated in Fig. 7. Judging from visual observations, the vortex appears to prevent a significant portion of the whitecap spray on these waves from becoming permanently airborne. These vortices may also tend to remove spray particles already airborne but not yet mixed to heights sufficiently above these cresting waves to avoid being drawn into subsequent vortices. The net result may be that the vortex mechanism compensates to some degree for the increase in white water spray production and reduces the airborne particle load below that which may be otherwise anticipated.

6. SNI as a Platform for Optical Measurements in Maritime Clouds.

The Navy has a continuing interest in may practical problems associated with the transmission of laser beams through the maritime atmosphere. One aspect of this problem is the need to determine the effect of various types of maritime clouds on the attenuation, loss of coherency, and target illumination capabilities, for example, of laser beams. Airborne lasers and/or detectors are one way to

reach the altitudes necessary to encounter the clouds but the obvious practical problems of alignment, vibration, and expense are serious drawbacks. These difficulties can be avoided if suitable islands are found which are high enough to penetrate the low level cloud zone and where clouds frequently exist at ground level on an accessible portion of the island. One such island that has been the scene of intensive cloud studies in the past is the island of Hawaii. A persistent, widespread, orographically intensified cloud often forms at ground level on the slopes of Mauna Kea as the tradewinds flow over the island. The cloud is about as ideal as one can find for a "laboratory" cloud, but the remoteness of the location and the primitiveness of the terrain limits the number of feasible measuring sites and makes the logistics very difficult.

It is suggested here that SNI may have been overlooked or unrecognized as a possible, attractive alternate to Hawaii for use as a natural cloud laboratory. It will be seen upon reading the Daily Meteorological Notes in the Appendix that during the CEWCOM-78 exercise, persistent, ground level cloud was observed on three different occasions along the road over the NW crest of the island. On May 9 and 20 the cloud was present all day, while on May 19 it lasted throughout the morning (and probably much of the previous night). On the evening of May 14, clouds formed intermittently at that location for periods of up to half an hour.

This crest cloud on SNI is definitely orographic in nature and therefore it will be more dense in some cases than the clouds occurring at sea in the vicinity of the island. But this is also true of the orographic cloud on Hawaii. Although the Hawaiian cloud forms in a remote, truly maritime environment (except for some possible, local island influences), the SNI cloud is more representative of actual conditions in the West Coast operating area. Judging from the radon background radioactivity measurements at SNI during CEWCOM-78, the crest clouds of May 19 and 20 formed in air that definitely had been influenced by the continent. The May 9 cloud appears to have formed in older continental air or in a mixture of continental and maritime air just before the arrival of a definite, maritime airmass. The May 14 episode also occurred on the leading edge of a maritime airmass. From a scientific point of view one can summarize by pointing out that SNI is far enough from the mainland to 1) generally avoid the heavy urban pollution associated with coastal sites, 2) be exposed alternately to various degrees of maritime and continental air masses, and 3) trigger cloud formation that is representative of the offshore, coastal-maritime conditions.

Finally, the logistics capabilities and security of this Navy operated facility offer significant advantages

over other remote islands. There are also several existing buildings in the area of interest on the NW crest of SNI. It may be possible to use some of these for instrument shelters, recording laboratories, or at least for a source of electrical power.

APPENDIX: DAILY METEOROLOGICAL NOTES

The following informal record of the general meteorological conditions at SNI during the CEWCOM-78 exercise is included here for two reasons. First, it serves as an aid to the reader desiring to view the data presented here in the context of the existing atmospheric state, at the location of the measurements, in terms that are difficult to quantify and which are therefore seldom reported. It also documents general observations relevant to the operation of the optical devices over long path lengths in the type of atmospheric conditions represented at SNI. These notes are not intended to be complete in all details or provide a log of variables such as air temperature, dew point, wind speed and direction. Other reports such as reference 1 should be consulted for that type of information.

The necessity for making several daily trips for meals and supplies between the NRL tower and the island's living quarters afforded good opportunities to observe meteorological conditions in the vicinity of SNI. The tower was located near sea level at the northwest point of the island and the living quarters, halfway along the length of the island, were reached via a road that traverses the highest part ($\sim$300m msl) of the island (Fig. 2). The resultant ability to view the local atmosphere from positions at sea level up to 300m gives a unique perspective not available to shipboard observers confined to sea level or to airborne observers able to be only occasionally present, or sometimes restricted by low stratus conditions.

Monday, May 8 (Day 128)

Skies had been clear and blue and temperatures warm the preceding two days. Today the sky was about 50% covered all day with cirrus or cirrostratus. Winds were light but steady until early evening when the wind direction slowly, and somewhat irregularly, moved from W to SW.

During this morning's transit to the NRL tower (1000h, PDT) a definite fog bank was noted in the distance to the south of SNI. It had disappeared, however, by the time of the next transit at 1630 PDT.

There was otherwise unusually clear "seeing" this day, with the islands of Santa Rosa, Santa Cruz, and Santa Barbara (Fig. 1) being easily discernable from the crest of SNI during the 1630 PDT transit. The former two islands are some 80-90 km distant, the later about 50 km away. There was, however, a noticeable amount of whitish haze visible low against the sky between SW and N, especially in the late afternoon when the sun was getting low in that quadrant.

(General haziness over the ocean is typically more noticeable when revealed by forward scattering in the vicinity of the sun when the sun is at low elevations. For a given sun angle, the apparent haziness varies from day to day as meteorological conditions change.)

The nightime sky up until 2400 PDT, at least, was clear and starry with stars visible to within 10^{o} of the horizon in all directions (SW through N to SE) accessible from the tower location. The orange colored sky glow above Los Angeles was distinctly visible in the distance.

The sea was calm all day with estimated Sea State Two conditions (rough surface with some low swells but no whitecaps at all).

Tuesday, May 9 (Day 129)

On the high road portion of the morning transit to the NRL tower at 0800 PDT, it was seen that SNI was completely surrounded by a low fog that was estimated to be perhaps 65-100m thick. From above, the fog appeared dense with a sharply delimited top and clear, blue sky above. The air over the upper elevations of SNI was clear and no fog was encountered along the road until about the 200m level where the road begins its sharp descent to the NW point. The fog was thickest just below its upper reaches along the road, and the visibility improved somewhat as we descended toward sea level.

On arrival at the NRL field site, it was found that the tower was generally shrouded in fog, and Site A (up the hill) even more so. The fog we had looked down upon from the crest of SNI now constituted unbroken overcast as seen from sea level.

The periodic flashes of light from the MRI Visibility Meter at Site A could not be seen from the NRL tower location at this time. Site D was also obscured.

By 1000 PDT the fog was dissipating noticeably, the overcast was becoming brighter (thinner) and the horizontal visibility (VSBY) was much improved over water and over the lower levels of the island. The solar disc was beginning to show occasionally. Site A was now clearly fog free but the upper reaches of the island (as viewed from the tower site) were still noticeably shrouded in fog.

By 1230 PDT the crest of SNI (as viewed from the NRL site) was still mostly obscured by fog, though over the sea the horizon was clearly discernable. The sky was still 100% overcast, however.

By 1300 PDT the fog (stratus) drifting overhead appeared to be breaking up, with patches of blue sky visible here and there. On driving back to the living quarters, the windward (NW) crest of the island was still bathed in ground level fog, although the fog dissipated before it advected more than a kilometer or so along the ground. It was evident that the island was intercepting the remaining, thin stratus deck at this elevation ($\sim$200m) as the stratus advected toward the SE. It was also evident that the island intercepted the stratus at a height considerably above the height of the deck over water away from the island. That is, the stratus was being augmented and strengthened by orographic lifting as it advected across the island, in a manner represented schematically in Fig. 8.

From the crest of the island one could see that the apparently continuous stratus deck still surrounded SNI and extended in all directions (except maybe the distant NE and E) as far as one could see.

The "crest fog" persisted all day and by nightfall it appeared to be intensifying. By 2200 PDT fog fragments were drifting overhead as far as the living quarters. This suggested that the fog could possibly return during the night as the ground cooled and as radiation losses from the top of the still-present stratus layer at sea caused enough cooling to produce a "stratus lowering" situation. However, no fog ever appeared (see Met. notes for May 10).

In summary, from the NRL tower location the sky appeared overcast all day with occasional, small, blue sky patches during the afternoon. From the summit of the island the overhead sky was clear all day except for a 50% cover of thin cirrostratus. The stars at night were clearly visible from the summit of the island.

The sea state was estimated to be condition three all day - - the surface was rough with occasional whitecaps most of the day. There were only low swells.

Wednesday, May 10 (Day 130)

At 0800 PDT, it was noted that the sky was overcast over the entire island now as well as at sea. The stratus deck had lifted well above the summit of the island during the night. The stratus top (inversion base) was obviously near or above the 400 meter level, the maximum height that appears to be allowable if fog is to form at sea by stratus lowering mechanisms.[11-13]

Thus the area was fog free, although the air appeared to be quite hazy over the water, especially to the south and downwind of SNI. The windward crest of the island was no longer brushed by fog (stratus intersecting the island), the cloud base being estimated at 40 meters or more above ground at this location.

As viewed from the crest of the island, the air appeared very hazy in all directions, but the horizontal VSBY improved considerably with decreasing altitude of the observer toward sea level. As viewed from the shore, the horizon at sea was clear and sharp.

The sea state was estimated at condition four with fairly frequent white caps present by 0900 PDT.

Sky conditions remained nearly constant during the day with elevated, broken, thin stratocumulus. The windspeed increased slowly during the day with may whitecaps all around, but no really heavy, crashing swells.

By sundown the broken stratus layer appeared to be thickening, especially over the windward crest of the island. In the late evening the stratus was low enough to be seen intermittently obscuring the aircraft beacon light on the summit of the island.

Thursday, May 11 (Day 131)

At 0600 PDT the sky over the island was completely overcast but by about 0715 the overcast had all but disappeared. During the drive to the NRL site, it was found that the windward third of the top of the island was still seeing about a 50% sky cover composed of small stratus fragments drifting a few hundred tm* overhead. As usual, these appear to be the result of orographic effects on this end of the island.

As viewed from the summit, the horizontal lines of sight were very hazy, implying that the high relative humidity present at this elevation had swollen the aerosols considerably. There were no distinct clouds visible at sea - - only over the island.

*The tercimeter (abbreviated, tm) is a unit of length defined here to be equal to one third of a meter, or approximately one foot. This unit is useful when one desires to be consistent with the metric system of nomenclature but finds it otherwise awkward to convert an imprecise but common expression in units of feet (eg., "a few hundred feet") to a suitable metric equivalent.

When viewed from sea level, the VSBY was much improved and the at-sea horizon was distinct. There was still a dark haze (almost foglike) at sea over the northern quarter of the horizon.

The sea state at 0700-0900 PDT was estimated at conditon 3 with fairly frequent white caps, but not as numerous as during the higher winds of last evening.

By 1100 PDT the sky was blue and cloudless in all directions, as seen from the NRL site, except for a few small fragments continually forming over the windward crest of the island. As one looks back toward the "bluffs" and the crest of the island behind Laser Bay, a whitish haze is noticeable in the air as seen against the darker background of the bluffs. This is probably due largely to surf-generated spray drifting and diffusing across the island. By this time the sea was calmer, though, with almost no significant swells and with only an occasional whitecap.

The sky remained cloudless all day, although it was again noted that to an observer on top of the island, the horizon is more hazy than when viewed from sea level. In fact, during this afternoon from about 1600 PDT until sunset at about 2000h, the horizon was indistinguishable in all directions when viewed from the crest, but was clearly distinct and not especially hazy in appearance when viewed from sea level.

After sunset the sky was still cloudless and starry up until the time of departure from the NRL site at 2300h. From sea level, stars were visible down to within 20^{o} or less from the horizon.

Friday, May 12 (Day 132)

The sky was still clear and cloudless at 0600h and remained so all day. The winds were weak and the air temperature noticeably higher than had been experienced during the preceding part of the week, both on top of the island and at sea level. The low windspeeds observed during the day at the NRL site were probably a weak sea breeze. No wind was noticeable at the living quarters area higher on the island.

The horizon sky was slightly grayish but otherwise relatively clear when viewed from sea level. Horizontal haziness was again much more pronounced when viewed from the top of the island.

The sea state this morning was estimated at condition 2 - - no white caps at all.

Under these low windspeed conditions the air in the first five meters or so above the breaking surf in the vicinity of the NRL tower was very noticeably "smoky" with sea spray haze. The waves were not very large but the breakers were very foamy and long lasting as they washed up over the rocky shore. Out near the everpresent offshore breakers located a kilometer or so NW of the tower, one could also see today what appears to be a low lying, faint "smoke" down wind from those breakers.

The previously described "blocked sunbeam" technique was used at the NRL site and Site A to examine the influence of this surf generated spray at these locations. At Site A the observed backscatter in the sunbeam was less intense, but with more short-term fluctuations than seen from the ground at the near shore, NRL site. This indicated that the larger "clouds" of spray seen drifting past the NRL tower at the rate of perhaps four or five per minute had broken up into many smaller, fragmented parcels by the time they drifted up to Site A.

By 2200h the sky was still clear and starry with the planet Venus visible right down to the horizon. The air was still warm and the winds weak.

Saturday, May 13 (Day 133)

The air was warm all day and the sky was cloudless until about noon when thin cirrus strands appeared in the distance to the NW. This cirrus slowly invaded the sky and the leading strands were overhead by about 1600h. The marine radio forecast this morning told of a frontal zone extending from the Oregon coast to a point SW of San Francisco. The observed cirrus was evidently the precursor of the invading cool air forecast for tomorrow.

This weather situation appears to fit the classical, post Santa Ana condition where warm continental air which has been moving westward to sea the last two days was now being halted at the approaching front. Continental aerosols will soon be pushed back ashore after a few days of "conditioning" over the ocean. The marine forecast was calling for "fog in the low lying areas and in bays and inlets, with some increase in low level cloudiness tomorrow."

The general haziness was judged "moderately light" today compared to "moderate" yesterday. The haze still apprears more dense when viewed from the top of the island. Nevertheless, from that elevation today one could see what appeared to be the top of one of the islands to the north of SNI.

The late evening sky was starry and cloudless. However, on departing the NRL site at 2100h, it was noted that the tower was wet and hazy patches of backscatter were seen in the headlight beams during the transit along the shore road. All conditions, including moist air and a clear sky, looked right for a late night or early morning fog.

Sunday, May 14 (Day 134)

At 0630h evaporating fingers of fog were seen drifting occasionally through the living quarters complex from the NE. The sky to the south was blue, however.

During the drive to the NRL site at 0730h, it was found from the vantage point of the crest road that the island was nearly surrounded by low stratus or fog. The island itself was cloud free, except for the NW point. The stratus was also absent over the sea on the lee side, as sketched in Fig. 9. The wind was from the NE and from the descending road one could see fog being advected across the NW point at the NRL site. The fog (stratus) top was well below the crest of the island and therefore was somewhere between 100 to 250m above sea level.

By 0900h the fog had nearly disappeared at the NRL site as the leading edges receded to the NE along the shoreline. At about 0945h the fog began advecting back in from the NE for a while. But then the horizontal VSBY began to improve rapidly in all directions, although the stratus still provided an 100% overcast as viewed from the NRL site. The RV ACANIA, which was at anchor about 1½ km to the north, was completely obscured until about 1000h. By 1015h the horizontal "seeing" was still very hazy but not foggy. From sea level the horizon was discernable in all directions at this time.

At 1130h, on the way back to the living quarters, the view from the crest road vantage point showed that the island was now completely surrounded by the stratus with only a slight clearing along the shore on the lee side. The lee was now on the N and NW sides instead of the S and SW sides as during the earlier part of the morning. The sky was still clear and cloudless in all directions above the low lying stratus.

The marine forecast, valid from 1600 PDT today until 1600 PDT tomorrow, called for "fog and low clouds with . occasional reductions in VSBY to zero tomorrow morning, but improving after noon with clouds raising to about 800 ft".

At about 1300h, from the top of the island one still looked down to the top of the surrounding stratus but the

top seemed to be higher than it was this morning. At 1330h, the ACANIA, still at anchor offshore, was reporting the inversion base at about 215m, according to their accoustic sounder. At the NRL site at this time the sky was still completely overcast, the air was hazy and the horizon was not very distinct.

By 1600h the overcast seen from the NRL site was just beginning to show signs of breaking up. From the crest road one could see wisps of fog still licking the south shore and the stratus deck was noticeably arched up as it advected against the windward (NE or E) side of the island. The stratus top was still below the crest of SNI.

By 1745h, on the way back to the NRL site, it was found that all the fog and stratus was gone! It was now cloudless everywhere and in all directions except for a small, residual patch far to the south and also perhaps far to the NE. Viewed from sea level, the sky was noticeably clear and haze free. The horizon was clearly visible in all directions including in the general direction of the late afternoon sun where foward scatter normally reveals any haziness not otherwise noticeable. Additional information supplied by other CEWCOM participants[14] revealed that the local Radon background radioactivity level was now about 1 pCi/m^3 and the Aitken (small particle) count was below 2000 cm^{-3} compared to about 5000 cm^{-3} yesterday. Both of these measurements thus indicated the presence of an air mass more typical of open ocean contitions.

Since about 1600h the winds had been increasing slowly but noticeably from a steady NW direction, the windspeed being about 4 m/sec at 1900h.

By 1900h a distinct orographic cloud had formed over the NW (now the windward side) of the island. The cloud reached the ground at the windward crest but was estimated to be not more than two or three hundred tm deep. The cloud was sufficiently dense and extensive to be dark gray, however. By 1915h it had dissipated.

By sundown (1950 PDT) the sky toward the NW direction was extremely clear. The islands of Santa Rosa and Santa Cruz to the north of SNI could be seen from sea level for the first time during the CEWCOM exercise. By 2200h a few thin wisps of orographic cloud were present again at a height of about 30m above the NW crest of SNI.

Monday, May 15 (Day 135)

The morning air was still very clear. From the crest road the neighboring islands could be seen, including San Clemente Island to the SE. This latter island had never been visible before.

There was a 20% cloud cover of cirrostratus seen from sunup until about 0800h. The wind was steady from the NW at 10 m/sec now. The sea was rough with many white caps but no large swells yet. The radon count at SNI was very low - - nearly at the residual background level of about 1 pCi/m^3, indicating either a true maritime air mass or strong subsidence of clean air from aloft.

By 1300h the wind was blowing clouds of dust up the hill between the NRL site and Sites A and D. Particle counters and nephelometers at these "uphill" sites were no doubt exposed to a significantly higher particle concentration due to this dust in addition to the usual surf generated spray.

By 1630h the seas were still rough with the waves becoming more organized into larger rolls. The horizon seen from sea level was still very distinct and the sky was cloudless. Very little haze was noticeable even against the background bluffs behind Laser Bay where the whitish haze was readily apparent some of the time last week.

The lee vortex effect associated with the large waves and described in an earlier section of this report was observed today from the NRL site.

Tuesday, May 16 (Day 136)

In the morning the wind was still strong from the NW. The sky was cloudless but much hazier compared to yesterday. The horizon was completely obscured when viewed from the crest road and even the sea surface nearby was difficult to discern except close to the shore where the viewing angle to the water was steep. No neighboring islands were visible from either the crest or the shore of SNI this morning. The sea level VSBY was much better than from the crest road, however, the horizons being

The sea was still covered with <u>many</u> whitecaps, as well as long, rolling waves and wind sheared crests.

The reduction in VSBY from yesterday was at least partly due to the return of continental air to SNI even though the local wind direction was still steady from the NW and had been for the last 40 hours. The evidence for the continental air was the radon background activity[13] which began to increase from a minimum of about 1 pCi/m^3 at 2100h last night and had reached 20 to 30 pCi/m^3 by 0800h this morning.

In the early afternoon it was noted that a rather well demarcated band of smoke-like spray could be seen drifting with the wind up the hillside as one looked southwesterly to the shore road about half a kilometer away. The situation is sketched in Fig. 10. The top of the band was discernable against the blue sky background. The band of spray was tenuous but, due to favorable lighting and wind and tide conditions at this time, one could see "globs" of spray moving for some distance uphill from the shore. This surf spray mechanism is generally present all along the rocky shoreline, but the favorable conditions for viewing it today made it quite noticeable. The fact that there was a recognizable upper boundary to this aerosol band for a distance of at least 100m (the approximate maximum length of band that could be seen from any one location) implies that the upward mixing is slow for the conditions that were prevalent today.

The brownish residue that collects on the windward (seaward) surfaces of the tower structure during high wind conditions was seen again today. The one previous occurrence was on May 5 in which case the residue had apparently been deposited during the preceding windy night. One unofficial explanation was that it is a metabolism product of the local kelp and is common along the West Coast.

By 1800h the islands of Santa Rosa and Santa Cruz could be seen from the crest of SNI. However, only the tops of these islands appeared to be visible, the bases being obscured by a whitish haze layer presumably capped by a low lying inversion. Indeed the local rawinsonde at 1450 PDT showed a moderate inversion of 3°C between 180 and 290m. In addition there was a strong humidity gradient leading to drier air above. This dry air above the low lying inversion was evidently a precursor of the strong Santa Ana conditions that were soon to reach the island.

At about midnight the surface winds abruptly changed from NW to NE and dropped to about 3 m/sec.

Wednesday, May 17 (Day 147)

At 0800h the air was warm, the sky was cloudless and the VSBY was excellent. The view of the islands to the north was the clearest yet, especially from the crest road where even the front range of mountains on the mainland could be seen behind the islands. Although the VSBY at sea level was worse than from the crest road, contrary to the usual situation noted so often before, one of the northern islands was obviously more distinct than ever before when viewed from sea level.

The sea was much calmer this morning. It was not smooth, but there were no whitecaps either. There were still some long rolls of medium height coming in to shore.

From the crest of SNI one could see a thin brown, pollution layer in the distance near the horizon and extending from the NE quadrant to the SW. From sea level it was seen that this brown band was separated from the sea surface by a clear, shallow layer. Later, by about 0930h, these fine variations could no longer be discerned. This again emphasized the fact that various observations depend on having the correct angle and intensity of solar illumination for best contrast, highlighting, etc.

The radon counts were hitting a record high corresponding to about 50 pCi/m^3. At 0930h there was a strong humidity gradient over the 20 meters separating the upper and lower instrument booms on the NRL tower. The sensors at the 23m (msl) level indicated 50% RH compared to 60% at the 11m (msl) level.

During the remainder of the morning and early afternoon there were strong fluctuations in air temperature and dew point at and between the two instrument boom levels. These were the result of intermittant penetrations of the overlying, hot, dry Santa Ana air down to the levels of the sensors on the tower. The marine layer was thus very shallow at this time.

At about 1500h, the wind shifted back to the NW and the air temperature and dew point returned to normal, more steady values. At this time a growing amount of cirrus filaments and cirrostratus was noted in the distance to the SW. The cirrus slowly invaded the sky and was overhead by sundown with more extensive overcast behind it. This appeared to signify the arrival of a warmer air mass from the SW.

Thursday, May 18 (Day 138)

The morning skies were blue and clear except for a few cirrus hooks in the sky from the SW to overhead. The VSBY was good. The northern islands could be seen from the crest road, and one of them was discernable from the shore at about 0800h. It was noted that the smoke from a ship to the south of SNI was flattened at a height of 100m or so, indicating a significant inversion at that level. One could even feel the air temperature becoming cooler during the descent of the island road toward the shore, confirming a significant inversion with its base well below the crest of SNI. From the sea level site, one could also see a low, whitish band over the water to the E and NE, again implying

a sea spray band being held down by a low inversion. By 0930h the band was no longer recognizable against the brighter sky, again emphasizing the importance of taking advantage of favorable sun angles during the short opportunities available for a given region of the sky. The air over the ocean appeared clean and not especially hazy, but one could see a definite whiteness to the air when viewed against the backdrop of hills behind Laser Bay.

The sky remained clear and cloudless the rest of the day, except for the few cirrus filaments in the morning.

Soon after sundown the air temperature began to decline and the increasing relative humidity caused copious amounts of moisture to form on the tower structures. The high relative humidity, low winds, low inversion and clear sky were good conditions for the formation of fog which did appear at 0320 PDT the following morning.

Friday, May 19 (Day 139)

Fog set in suddenly at about 0330h PDT. The fog felt very wet with suspected drizzle drops noticeable especially on the upper reaches of the tower. In general the fog was not of "pea soup" density near the NRL location, however, and the fog seemed to be drier and less dense near the ground. There was again an orographic intensification over the NW hill of SNI, including the slope containing Site A! The area near Site A was often more noticeably shrouded than elsewhere in the immediate vicinity.

By about 0630h PDT the fog was thinning noticeably in the lower 30m. During the drive from the NRL site toward the SNI living quarters at this time, "pea soup" fog was encountered near the NW crest where orographic intensification is usually seen. The crest road and the portion of the island above about 250m were open to clear blue sky above. From the top of the island one looked out over solid stratus in all directions with a well marked top at an estimated 250-270m above sea level. The stratus mass was flowing past SNI like a river toward the SE.

At 1300h the stratus coverage still looked about the same when viewed from above, but it had eroded away underneath to a height of several hundred tm. The stratus remained around the island all day with the top at a nearly constant height and flowing past SNI toward the SE.

By about 1600h the underside of the stratus appeared to be slowly lowering and the VSBY at sea level decreased to a heavy haze - - nearly a fog condition. The VSBY then vascillated somewhat with slow, occasional improvements during the remainder of the day.

By 1800h the wind had increased somewhat and occasional whitecaps were seen at this time in addition tc the moderately rough seas present during the day.

The overcast (from sea level observation points) remained throughout the night but apparently no fog recurred at the sea level sites. At about 2200h fingers of fog were seen encroaching on the living quarters complex, however. This was evidently a result of a rise and a strenghtening o: the stratus deck toward the island.

Saturday, May 20 (Day 140)

At 0630h it was noted that the entire island was now 100% overcast with fog visible at ground level at the NW crest. The overcast remained all morning, but by about noon the clouds began to dissipate over the SE half of the island. By 1400h the sky was 90% clear and blue over the SE half of SNI but the NW crest area remained foggy all day. Similarly, the sky in all directions accessible from the NRL tower site remained 100% overcast all day, except for an occasional, thin opening during the late afternoon.

The winds increased very slowly during the day and produced a moderate number of whitecaps by mid or late afternoon.

Sunday, May 21 (Day 141)

At 0630h PDT the sky was still 100% overcast in all directions with cloud base estimated to be at 500m or higher above sea level. As is most frequently the case, the air over the ocean appeared very hazy when viewed from the top of the island and the horizons were very obscured. At sea level, however, the VSBY was quite good and the horizon was sharp and clear against the overcast sky. The airspace against the backdrop of hills behind Laser Bay appeared to be clear as viewed in the diffuse, available light.

The 100% overcast persisted until about 1530h PDT when the stratus deck began breaking up and one could see the westward edge of the cloud sheet slowly moving SE toward SNI. By 1630h the western half of the sky was blue and cloudless. The horizons were very sharp with no discernable haze anywhere, not even in the direction where the sun normally highlights existing haze by forward scattering. At this time the wind was still moderate at about 7 m/sec and there were frequent whitecaps everywhere, as had been the case most of the day.

By 1800h the entire sky was clear and blue. From the crest of the island the horizon appeared very hazy and much less distinct than from sea level at this time.

Monday, May 22 (Day 142)

The morning sky was about 50% cloud covered above SNI and in the local area. On the flight to Pt. Mugu this morning it was noted that the broken cloud cover merged into continuous stratus just E or NE of SNI. The stratus extended all the way to the coast line at least, with base and top estimated at about 500m and 1000m, respectively. The stratus was evidently topped by an inversion and the sky was clear and blue above. Below the stratus deck the air was very hazy and carried an odor typical of the ozone-vehicle emission flavor frequently associated with the air over urban areas.

During the latter part of the day the wind increased at SNI and was quite strong by nightfall.

Tuesday, May 23 (Day 143)

At 0830h the sky at SNI was noted to be clear and cloudless with strong winds which were clocked out of the NW at about 18 m/sec, gusting to 20 m/sec at 1000h. The relatively humidity was only 70-75% and the sea was heavily laden with white caps and white water everywhere. These were probably the roughest seas that had been seen so far during CEWCOM-78.

The VSBY at sea level was again surprisingly good and the horizon was sharp and clear. The air above the horizons was whitish but not exceptionally so. As usual, when viewed from the top of the island the VSBY is quite poor and the air at a distance (looking toward the horizons) is very hazy and whitish, and the horizon itself is very obscured.

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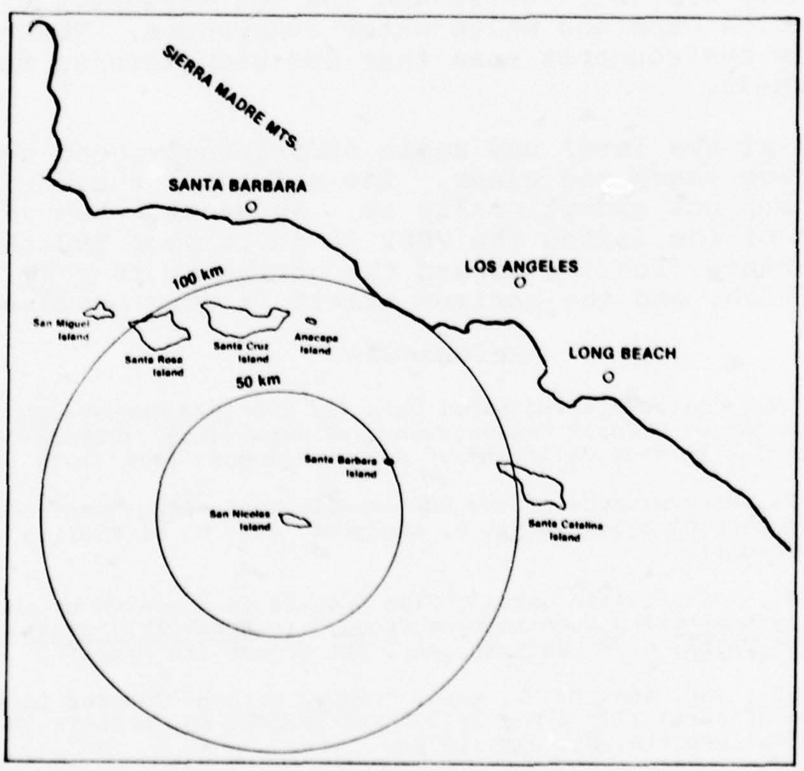


Fig. 1 - Map showing the location of San Nicolas Island and the neighboring Channel Islands off the coast of southern California

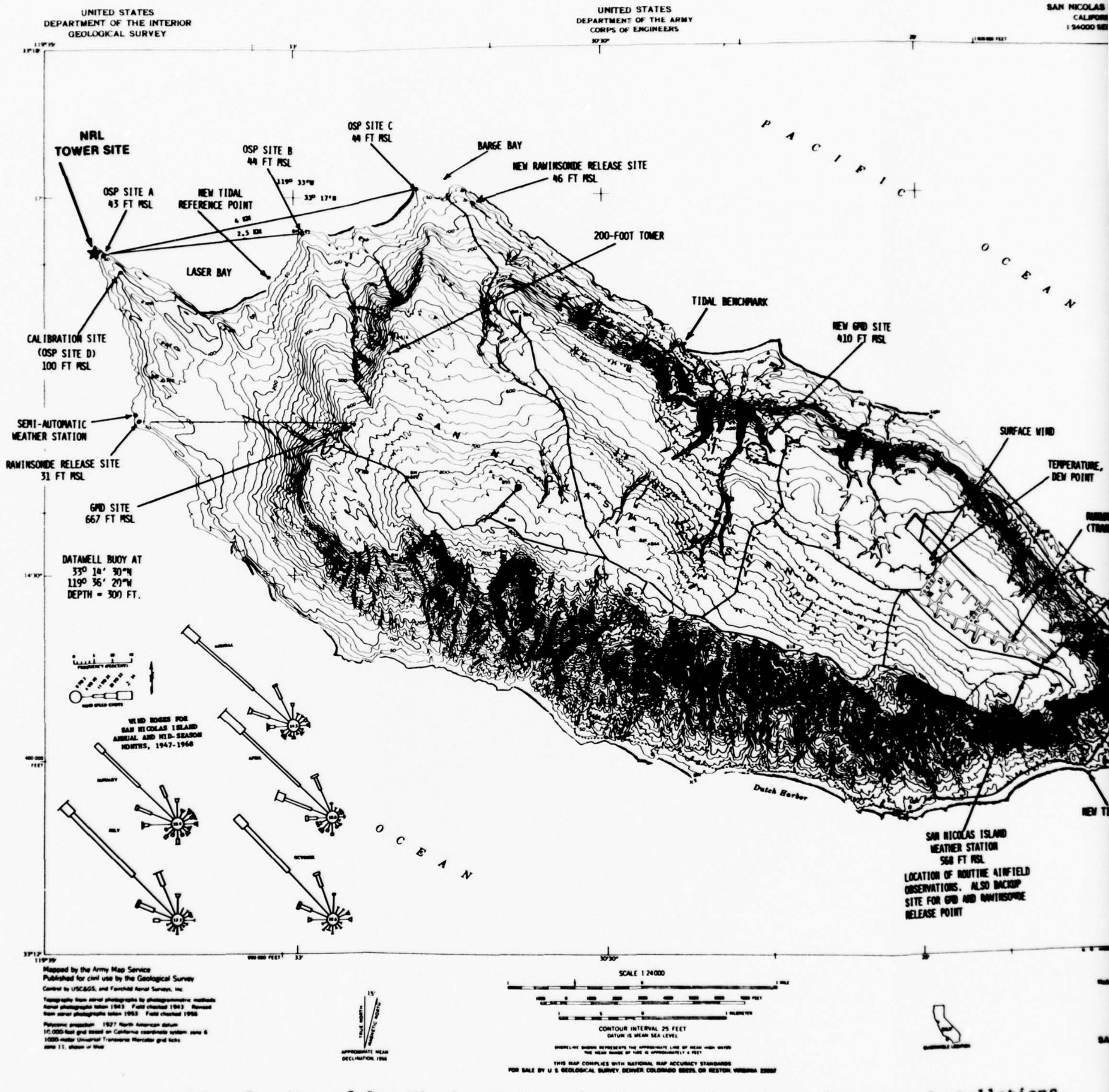
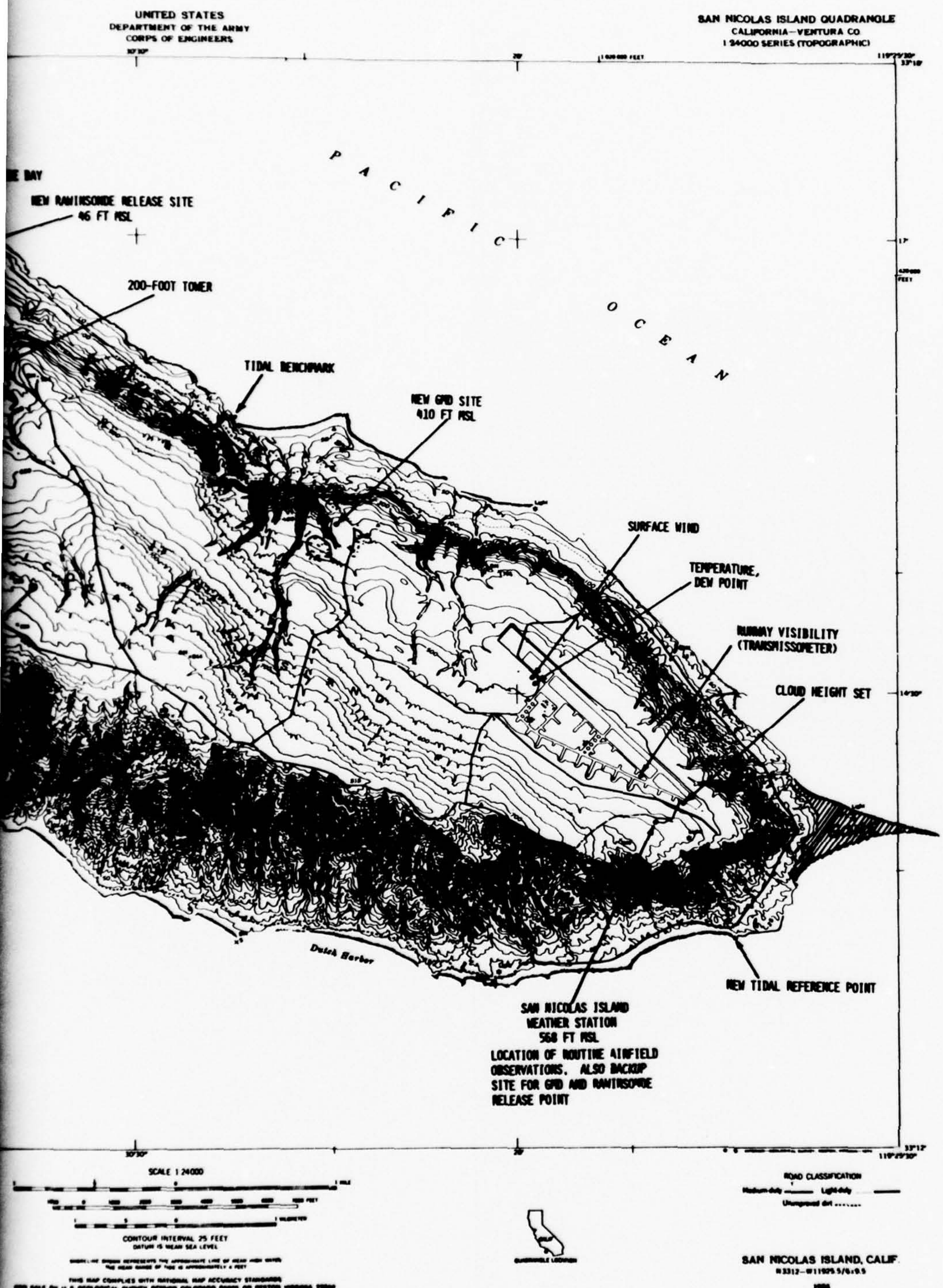


Fig. 2 - Map of San Nicolas Island showing the location of various installations, including the NRL tower site and OSP Site A on the northwest point of the island



Island showing the location of various installations, and OSP Site A on the northwest point of the island

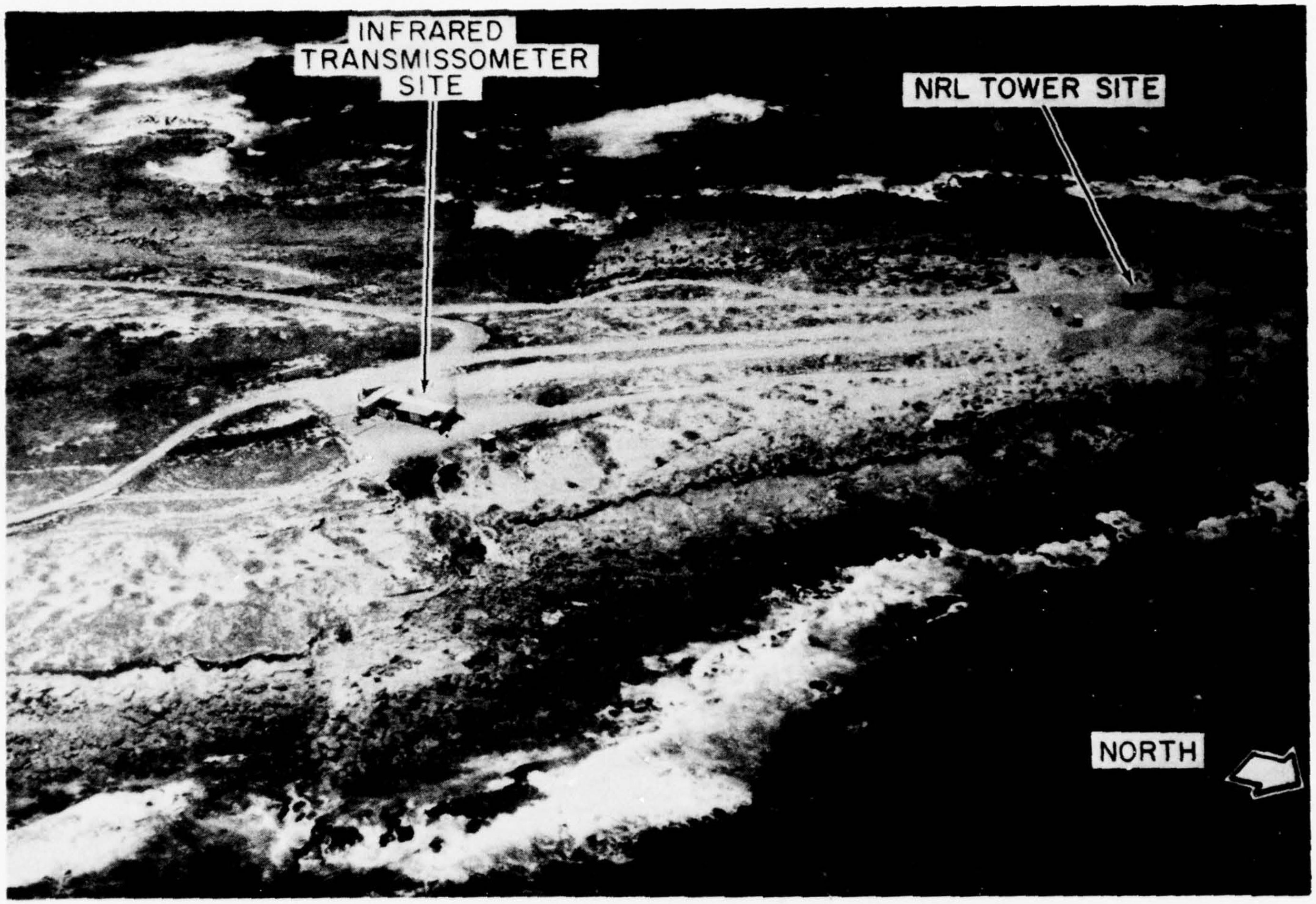


Fig. 3 - View of the northwest point of the island showing the terrain near the NRL tower and OSP site A. The view is during extreme low tide.

Fig. 4 - The NRL micrometeorological tower shown with the mobile recording laboratory in position at the base of the tower. The aerosol sizing probe was mounted on the second landing from the top of the tower.

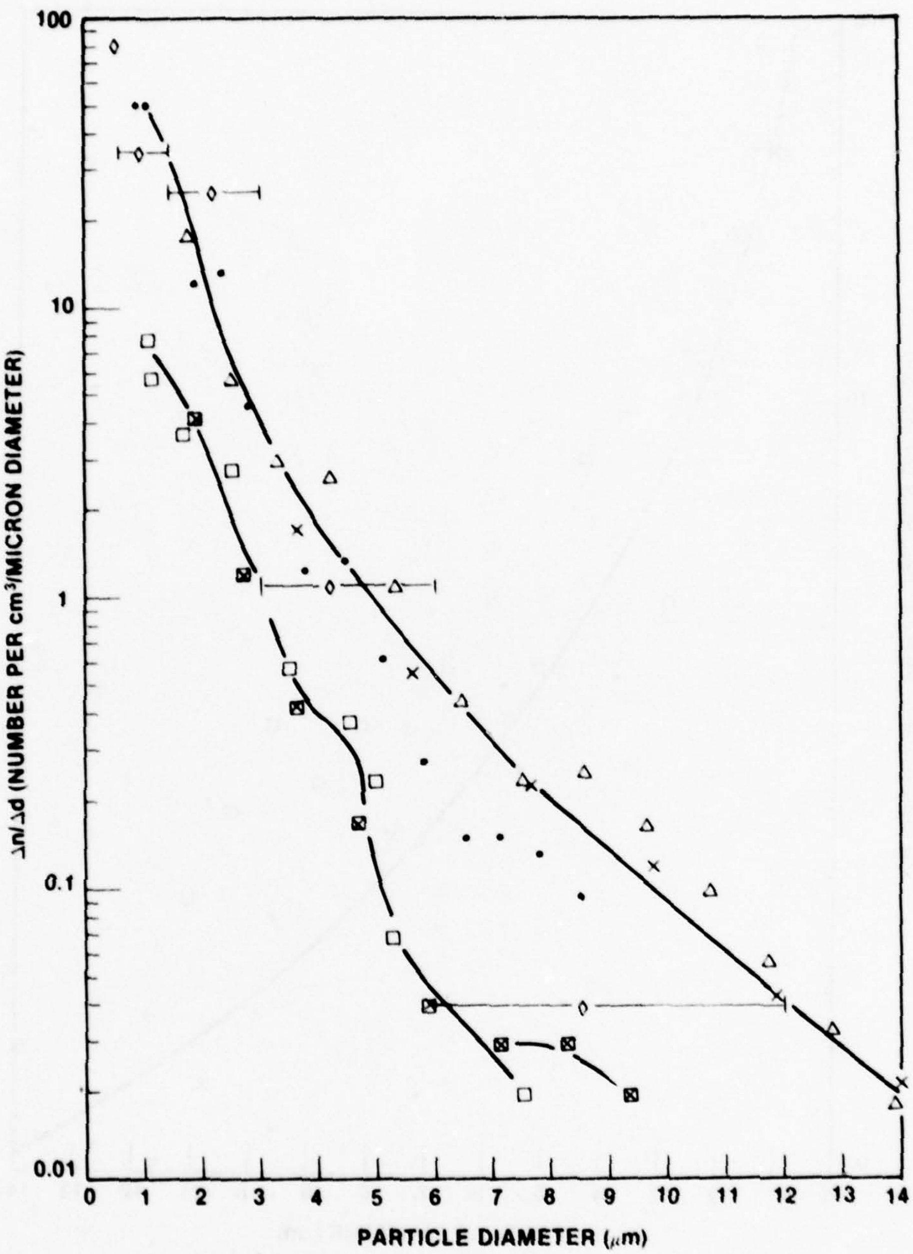


Fig. 5 - Typical particle size spectra indicated by the optical sizing instruments during the May 18 probe comparison session. Plotting symbols: NRL-ASSP ranges (●, 0.5-7.5μm; △, 1-15μm; x, 2-30μm), NOSC-ASSP ranges (□, 0.5-7.5μm, ⊠, 1-15μm), NRL-Royco size channels (|—◇—|). The solid lines are arbitrarily drawn through the data points.

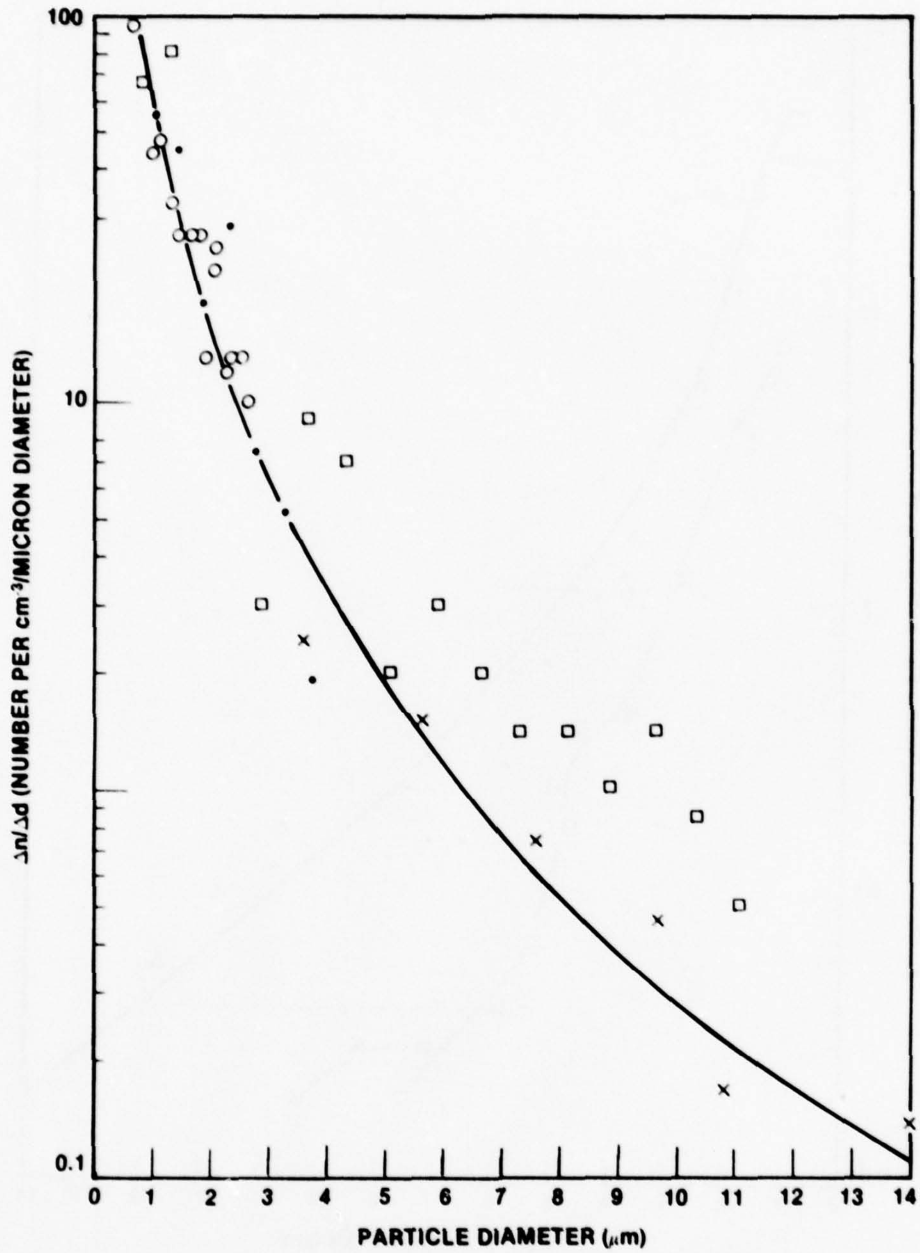


Fig. 6 - Particle size spectra indicated by the NRL-owned ASSP and the General Dynamics-owned CSAS probe during the May 18 probe comparison session. Plotting symbols: NRL-ASSP ranges (●, 0.5-7.5μm; x, 2-30μm), GD-CSAS ranges (○, 015-2.75μm; □, 1-12.25μm). The smooth curve is an arbitrary line drawn through the NRL data points.

Fig. 7 - Illustration of the effect of the lee vortex from a large, cresting wave during strong wind conditions. Much of the spray which is formed by the whitecap on the crest and sheared off by the wind is quickly driven back down to the water surface by the vortex.

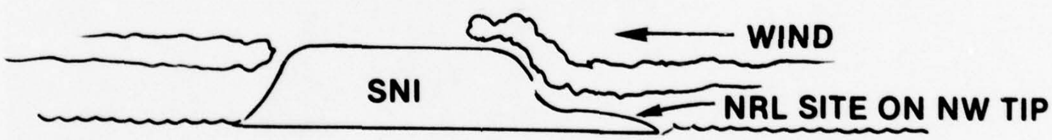


Fig. 8 - Schematic representation of the orographic lifting which occurred May 9 over the northwest crest of the island as the surrounding stratus deck advected from the northwest past SNI. The island is shown in a cross-sectional profile as viewed looking southwest and at right angles to the wind.

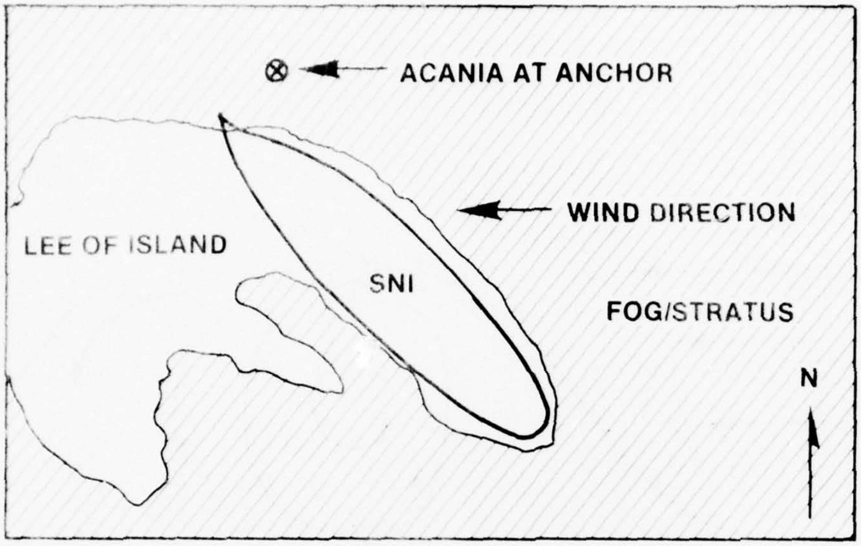


Fig. 9a - Schematic representation of the distribution of the fog/stratus deck in the vicinity of SNI on the morning of May 14

Fig. 9b - Photograph taken at a later time to illustrate a typical stratus condition during the May measurement session. View is from the crest of SNI looking north towards the living quarters complex.

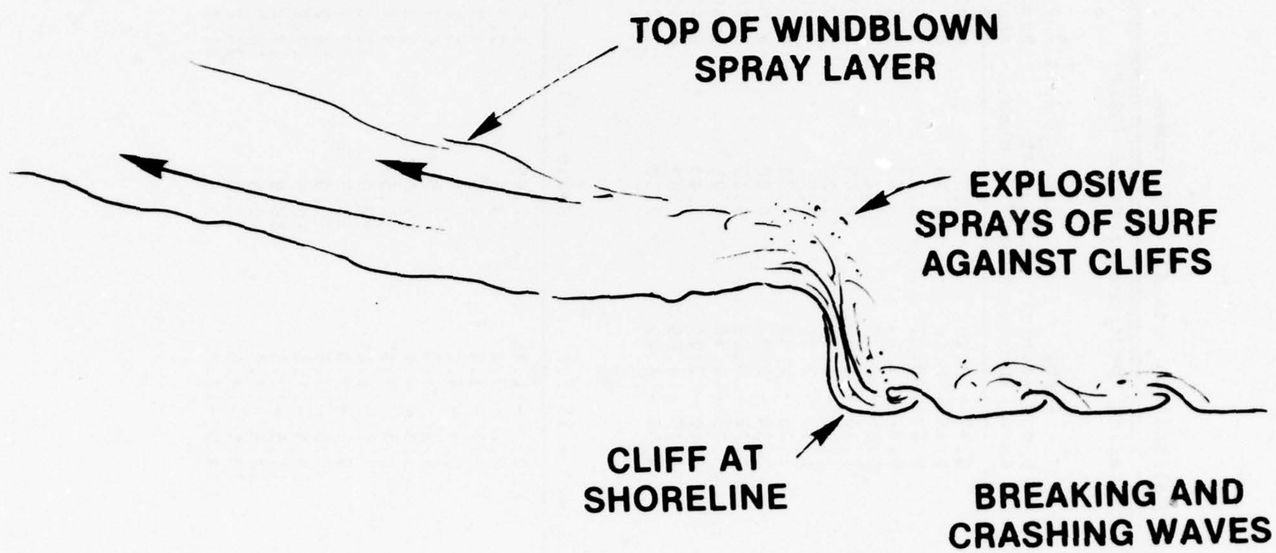


Fig. 10 - Illustration of the band of surf spray aerosol formed by waves crashing onto cliffs and breaking over large, rocky protuberances along the shoreline. The resulting, airborne spray is blown uphill by the wind, sometimes in a noticeable, well demarcated layer as depicted here.

TABLE 1. Calibration Data for PMS Probes

Axially Scattering Spectrometer Probe (ASSP)

Channel Number	Range 4 (0.37 - 4.4μ) Radius at ctr. of chan.	Range 4 (0.37 - 4.4μ) Range within chan. limits	Range 3 (0.4 - 7.7μ) Radius at ctr. of chan.	Range 3 (0.4 - 7.7μ) Range within chan. limits
1	0.42μ	0.37 - 0.45μ	0.55μ	0.42 - 0.70μ
2	0.52	0.45 - 0.60	0.88	0.70 - 1.05
3	0.72	0.60 - 0.82	1.25	1.05 - 1.45
4	0.95	0.82 - 1.05	1.65	1.45 - 1.85
5	1.18	1.05 - 1.30	2.10	1.85 - 2.38
6	1.40	1.30 - 1.52	2.65	2.38 - 2.92
7	1.65	1.52 - 1.75	3.20	2.92 - 3.48
8	1.88	1.75 - 2.05	3.75	3.48 - 4.02
9	2.22	2.05 - 2.38	4.30	4.02 - 4.58
10	2.55	2.38 - 2.72	4.80	4.58 - 5.10
11	2.90	2.72 - 3.08	5.35	5.10 - 5.60
12	3.22	3.08 - 3.40	5.85	5.60 - 6.15
13	3.58	3.40 - 3.75	6.40	6.15 - 6.70
14	3.90	3.75 - 4.08	7.00	6.70 - 7.25
15	4.25	4.08 - 4.42	7.50	7.25 - 7.75

Channel Number	Range 2 (0.7 - 15.5μ) Radius at ctr. of chan.	Range 2 (0.7 - 15.5μ) Range within chan. limits	Range 1 (1.05 - 23.2μ) Radius at ctr. of chan.	Range 1 (1.05 - 23.2μ) Range within chan. limits
1	1.05μ	0.7 - 1.4μ	1.65μ	1.0 - 2.2μ
2	1.8	1.4 - 2.2	3.0	2.2 - 3.7
3	2.8	2.2 - 3.3	4.5	3.7 - 5.2
4	3.8	3.3 - 4.3	6.0	5.2 - 6.7
5	4.85	4.3 - 5.3	7.5	6.7 - 8.3
6	5.9	5.3 - 6.4	9.0	8.3 - 9.8
7	7.0	6.4 - 7.5	10.5	9.8 -11.3
8	8.0	7.5 - 8.5	12.0	11.3 -12.7
9	9.0	8.5 - 9.5	13.5	12.7 -14.2
10	10.0	9.5 -10.5	15.0	14.2 -15.7
11	11.0	10.5 -11.5	16.5	15.7 -17.2
12	12.0	11.5 -12.5	18.0	17.2 -18.7
13	13.0	12.5 -13.5	19.5	18.7 -20.2
14	14.0	13.5 -14.5	21.0	20.2 -21.7
15	15.0	14.5 -15.5	22.5	21.7 -23.2

MAY 9, (DAY128) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
1442-1500	10	.14E+3	.11E+3	.84E+2	.74E+2	.53E+2	.18E+2	.93E+1	.46E+1	.40E+1	.24E+1	.20E+1	.79E+0	.2E+0	.6E-1	.0
1846-1900	8	.21E+3	.16E+3	.55E+2	.38E+2	.31E+2	.16E+2	.64E+1	.32E+1	.26E+1	.17E+1	.14E+1	.68E+0	.2E-1	.0	.0
1902-1914	7	.13E+3	.10E+3	.63E+2	.59E+2	.45E+2	.19E+2	.82E+1	.43E+1	.34E+1	.23E+1	.15E+1	.85E+0	.1E+0	.8E-1	.0

AVERAGING INT.(PST)	NO. OF SAMPLES	4.80	5.35	5.85	6.40	7.00
1443-1501	10	.26E-1	.31E-2	.60E-2	.0	.0
1845-1901	9	.16E-1	.0	.73E-2	.37E-2	.0
1903-1915	7	.39E-1	.23E-1	.38E-2	.38E-2	.0

MAY 10, (DAY129) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0856-0900	15	.58E+3	.71E+3	.63E+3	.54E+3	.47E+3	.26E+3	.89E+2	.38E+2	.28E+2	.19E+2	.15E+2	.83E+1	.61E+1	.4E+1	.4E+1
0901-0913	38	.75E+3	.60E+3	.36E+3	.25E+3	.18E+3	.91E+2	.34E+2	.15E+2	.12E+2	.75E+1	.58E+1	.34E+1	.25E+1	.1E+1	.9E+0
1021-1040	20	.14E+3	.13E+3	.10E+3	.82E+2	.73E+2	.38E+2	.19E+2	.95E+1	.86E+1	.52E+1	.39E+1	.22E+1	.14E+1	.7E+0	.5E+0
1041-1055	15	.13E+3	.13E+3	.11E+3	.84E+2	.75E+2	.40E+2	.20E+2	.98E+1	.89E+1	.55E+1	.40E+1	.24E+1	.15E+1	.8E+0	.5E+0
1123-1141	10	.97E+2	.10E+3	.92E+2	.73E+2	.63E+2	.32E+2	.15E+2	.73E+1	.65E+1	.38E+1	.30E+1	.15E+1	.10E+1	.45E+0	.36E+0
1522-1540	10	.54E+2	.67E+2	.64E+2	.50E+2	.43E+2	.15E+2	.78E+1	.37E+1	.35E+1	.22E+1	.15E+1	.77E+0	.41E+0	.2E+0	.6E-1
1542-1600	10	.54E+2	.65E+2	.64E+2	.50E+2	.43E+2	.17E+2	.81E+1	.40E+1	.36E+1	.22E+1	.17E+1	.82E+0	.49E+0	.2E+0	.1E+0
1602-1620	10	.57E+2	.63E+2	.62E+2	.47E+2	.41E+2	.16E+2	.77E+1	.38E+1	.33E+1	.20E+1	.16E+1	.65E+0	.41E+0	.23E+0	.2E+0
1622-1638	9	.60E+2	.65E+2	.63E+2	.49E+2	.44E+2	.15E+2	.80E+1	.39E+1	.37E+1	.23E+1	.16E+1	.69E+0	.35E+0	.23E+0	.1E+0
1645-1659	8	.56E+2	.65E+2	.62E+2	.49E+2	.42E+2	.16E+2	.80E+1	.40E+1	.37E+1	.21E+1	.16E+1	.86E+0	.47E+0	.19E+0	.1E+0
1942-2000	10	.74E+2	.63E+2	.57E+2	.42E+2	.38E+2	.12E+2	.74E+1	.37E+1	.34E+1	.22E+1	.14E+1	.60E+0	.36E+0	.2E+0	.1E+0
2002-2020	10	.51E+2	.53E+2	.53E+2	.39E+2	.37E+2	.11E+2	.70E+1	.35E+1	.31E+1	.20E+1	.15E+1	.51E+0	.32E+0	.2E+0	.1E+0
2022-2040	10	.55E+2	.53E+2	.52E+2	.39E+2	.36E+2	.11E+2	.71E+1	.36E+1	.31E+1	.20E+1	.14E+1	.47E+0	.29E+0	.2E+0	.1E+0
2042-2100	10	.54E+2	.56E+2	.54E+2	.41E+2	.37E+2	.12E+2	.77E+1	.38E+1	.32E+1	.20E+1	.15E+1	.59E+0	.33E+0	.2E+0	.1E+0
2102-2120	10	.72E+2	.63E+2	.54E+2	.40E+2	.37E+2	.12E+2	.75E+1	.39E+1	.33E+1	.22E+1	.14E+1	.60E+0	.37E+0	.25E+0	.2E+0
2122-2140	10	.11E+3	.70E+2	.53E+2	.37E+2	.34E+2	.10E+2	.67E+1	.34E+1	.29E+1	.18E+1	.13E+1	.43E+0	.30E+0	.25E+0	.1E+0
2142-2200	10	.59E+2	.51E+2	.48E+2	.36E+2	.32E+2	.95E+1	.64E+1	.33E+1	.28E+1	.18E+1	.12E+1	.43E+0	.24E+0	.16E+0	.1E+0
2202-2220	10	.54E+2	.52E+2	.49E+2	.37E+2	.33E+2	.10E+2	.67E+1	.34E+1	.30E+1	.18E+1	.13E+1	.39E+0	.31E+0	.22E+0	.1E+0
2222-2240	10	.59E+2	.51E+2	.49E+2	.37E+2	.33E+2	.99E+1	.68E+1	.35E+1	.30E+1	.19E+1	.13E+1	.47E+0	.35E+0	.16E+0	.1E+0
2242-2300	10	.59E+2	.51E+2	.49E+2	.38E+2	.34E+2	.10E+2	.71E+1	.37E+1	.30E+1	.19E+1	.13E+1	.47E+0	.34E+0	.24E+0	.1E+0
2302-2320	10	.51E+2	.48E+2	.48E+2	.37E+2	.33E+2	.10E+2	.68E+1	.35E+1	.31E+1	.19E+1	.14E+1	.45E+0	.35E+0	.22E+0	.1E+0
2322-2340	10	.46E+2	.45E+2	.47E+2	.36E+2	.32E+2	.96E+1	.65E+1	.34E+1	.31E+1	.20E+1	.13E+1	.44E+0	.32E+0	.24E+0	.1E+0
2342-2358	9	.51E+2	.47E+2	.47E+2	.36E+2	.32E+2	.99E+1	.65E+1	.34E+1	.30E+1	.19E+1	.12E+1	.50E+0	.33E+0	.24E+0	.1E+0

		4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
1124-1140	9	.19E+0	.66E-1	.83E-2	.32E-2	.0	.7E-3	.0	.0	.0	.0
1523-1541	10	.62E-1	.13E-1	.34E-2	.51E-3	.51E-3	.5E-3	.0	.0	.0	.0
1543-1601	10	.83E-1	.32E-2	.0	.30E-2	.23E-2	.6E-3	.0	.5E-3	.6E-3	.0
1603-1621	10	.68E-1	.26E-1	.96E-2	.11E-1	.0	.0	.0	.0	.0	.0
1623-1639	9	.91E-1	.20E-1	.44E-2	.30E-2	.18E-2	.2E-2	.0	.0	.0	.0
1646-1658	7	.10E+0	.34E-1	.0	.0	.0	.0	.8E-3	.9E-3	.0	.0
1943-2001	10	.85E-1	.33E-1	.11E-1	.14E-2	.3E-2	.0	.0	.0	.0	.0
2003-2021	10	.72E-1	.11E-1	.26E-2	.93E-3	.2E-2	.0	.0	.0	.4E-3	.0
2023-2041	10	.79E-1	.29E-1	.97E-2	.11E-1	.93E-3	.0	.0	.5E-3	.0	.0
2043-2101	10	.10E+0	.36E-1	.12E-1	.49E-3	.20E-2	.0	.0	.1E-2	.5E-3	.0
2103-2121	10	.95E-1	.51E-1	.15E-1	.34E-2	.33E-2	.5E-3	.0	.0	.0	.0
2123-2141	10	.90E-1	.23E-1	.22E-2	.0	.39E-2	.0	.0	.0	.4E-3	.0
2143-2201	10	.69E-1	.22E-1	.43E-2	.37E-2	.17E-2	.2E-2	.0	.0	.0	.0
2203-2221	10	.71E-1	.35E-1	.12E-1	.13E-2	.90E-3	.1E-2	.0	.0	.0	.0
2223-2241	10	.98E-1	.38E-1	.93E-2	.67E-2	.38E-2	.2E-2	.5E-3	.0	.5E-3	.0
2243-2301	10	.10E+0	.44E-1	.31E-2	.46E-3	.49E-3	.5E-3	.0	.0	.0	.0
2303-2321	10	.11E+0	.31E-1	.15E-1	.18E-2	.65E-2	.0	.0	.0	.0	.0
2323-2341	10	.85E-1	.26E-1	.94E-2	.91E-3	.47E-2	.9E-3	.4E-3	.0	.0	.0
2343-2359	9	.84E-1	.39E-1	.30E-2	.34E-2	.0	.5E-3	.0	.5E-3	.5E-3	.0

		4.50	6.00	7.50	9.00	10.50	12.00	13.50	15.00	16.50	18.00	19.50	21.00
0856-0900	15	.43E+1	.26E+1	.20E+1	.2E+1	.1E+1	.7E+0	.4E+0	.4E+0	.2E+0	.7E-1	.1E-1	.1E-1

MAY 10, (DAY129) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.50	6.00	7.50	9.00	10.50	12.00	13.50	15.00	16.50	18.00	19.50	21.00
0856-0900	15	.43E+1	.26E+1	.20E+1	.2E+1	.1E+1	.7E+0	.4E+0	.4E+0	.2E+0	.7E-1	.1E-1	.1E-1
0901-0913	37	.12E+1	.49E+0	.37E+0	.3E+0	.1E+0	.1E+0	.6E-1	.4E-1	.2E-1	.7E-2	.2E-2	.0
1021-1040	20	.30E+0	.68E-1	.28E-1	.1E-1	.7E-2	.1E-2	.0	.0	.0	.4E-3	.0	.4E-3
1041-1055	15	.36E+0	.92E-1	.54E-1	.2E-1	.5E-2	.6E-2	.3E-2	.3E-2	.7E-3	.0	.6E-3	.6E-3

MAY 11, (DAY131) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0002-0020	10	.48E+2	.62E+2	.64E+2	.45E+2	.39E+2	.99E+1	.73E+1	.36E+1	.34E+1	.21E+1	.12E+1	.38E+0	.35E+0	.24E+0	.16E+0
0002-0053	26	.48E+2	.46E+2	.46E+2	.34E+2	.30E+2	.91E+1	.62E+1	.32E+1	.29E+1	.18E+1	.12E+1	.44E+0	.36E+0	.21E+0	.1E+0
0022-0040	10	.44E+2	.60E+2	.61E+2	.42E+2	.37E+2	.95E+1	.68E+1	.34E+1	.33E+1	.19E+1	.12E+1	.36E+0	.31E+0	.25E+0	.16E+0
0042-0100	10	.42E+2	.56E+2	.62E+2	.43E+2	.38E+2	.97E+1	.70E+1	.38E+1	.33E+1	.20E+1	.13E+1	.40E+0	.38E+0	.23E+0	.14E+0
0103-0115	7	.36E+2	.38E+2	.39E+2	.29E+2	.25E+2	.70E+1	.49E+1	.28E+1	.24E+1	.14E+1	.93E+0	.37E+0	.23E+0	.1E+0	.8E-1
0310-0320	6	.38E+2	.46E+2	.57E+2	.42E+2	.37E+2	.94E+1	.66E+1	.36E+1	.32E+1	.20E+1	.13E+1	.45E+0	.39E+0	.26E+0	.2E+0
0322-0340	10	.40E+2	.51E+2	.60E+2	.44E+2	.40E+2	.99E+1	.73E+1	.37E+1	.33E+1	.21E+1	.13E+1	.47E+0	.40E+0	.27E+0	.2E+0
0342-0400	10	.42E+2	.52E+2	.60E+2	.43E+2	.39E+2	.96E+1	.70E+1	.37E+1	.34E+1	.20E+1	.13E+1	.41E+0	.33E+0	.21E+0	.2E+0
0402-0420	10	.41E+2	.49E+2	.60E+2	.45E+2	.41E+2	.11E+2	.74E+1	.39E+1	.35E+1	.21E+1	.14E+1	.44E+0	.41E+0	.28E+0	.2E+0
0422-0440	10	.37E+2	.46E+2	.58E+2	.43E+2	.39E+2	.98E+1	.70E+1	.38E+1	.34E+1	.22E+1	.13E+1	.46E+0	.39E+0	.24E+0	.2E+0
0442-0500	10	.42E+2	.49E+2	.58E+2	.45E+2	.39E+2	.10E+2	.75E+1	.40E+1	.34E+1	.21E+1	.14E+1	.46E+0	.36E+0	.25E+0	.2E+0
0502-0520	10	.44E+2	.48E+2	.56E+2	.43E+2	.36E+2	.89E+1	.65E+1	.36E+1	.30E+1	.21E+1	.14E+1	.43E+0	.33E+0	.23E+0	.2E+0
0522-0540	10	.41E+2	.51E+2	.58E+2	.44E+2	.39E+2	.97E+1	.70E+1	.38E+1	.33E+1	.22E+1	.15E+1	.48E+0	.39E+0	.24E+0	.2E+0
0542-0600	10	.46E+2	.59E+2	.64E+2	.50E+2	.46E+2	.13E+2	.83E+1	.42E+1	.39E+1	.24E+1	.18E+1	.64E+0	.46E+0	.29E+0	.2E+0
0602-0620	10	.45E+2	.61E+2	.63E+2	.50E+2	.45E+2	.13E+2	.80E+1	.43E+1	.38E+1	.25E+1	.18E+1	.77E+0	.44E+0	.31E+0	.2E+0
0622-0640	10	.42E+2	.58E+2	.63E+2	.49E+2	.43E+2	.12E+2	.75E+1	.42E+1	.36E+1	.24E+1	.17E+1	.64E+0	.44E+0	.29E+0	.2E+0
0642-0700	10	.46E+2	.62E+2	.64E+2	.49E+2	.44E+2	.12E+2	.79E+1	.42E+1	.36E+1	.24E+1	.17E+1	.65E+0	.43E+0	.29E+0	.2E+0
0702-0720	10	.46E+2	.65E+2	.66E+2	.50E+2	.44E+2	.13E+2	.78E+1	.42E+1	.38E+1	.25E+1	.18E+1	.80E+0	.48E+0	.29E+0	.2E+0
0722-0740	10	.47E+2	.68E+2	.72E+2	.54E+2	.49E+2	.15E+2	.85E+1	.46E+1	.41E+1	.27E+1	.19E+1	.89E+0	.56E+0	.33E+0	.19E+0
0802-0820	10	.42E+2	.59E+2	.67E+2	.54E+2	.41E+2	.15E+2	.77E+1	.41E+1	.36E+1	.23E+1	.15E+1	.80E+0	.5E+0	.2E+0	.1E+0
0822-0840	10	.44E+2	.54E+2	.59E+2	.48E+2	.33E+2	.11E+2	.62E+1	.33E+1	.29E+1	.18E+1	.12E+1	.63E+0	.4E+0	.2E+0	.5E-1
0842-0900	10	.52E+2	.57E+2	.58E+2	.48E+2	.32E+2	.11E+2	.62E+1	.35E+1	.30E+1	.20E+1	.14E+1	.58E+0	.4E+0	.2E+0	.0
0948-1000	7	.47E+2	.64E+2	.65E+2	.50E+2	.37E+2	.12E+2	.67E+1	.36E+1	.3E+1	.2E+1	.1E+1	.6E+0	.4E+0	.2E+0	.6E-1
1002-1020	10	.45E+2	.57E+2	.61E+2	.48E+2	.34E+2	.11E+2	.66E+1	.34E+1	.30E+1	.19E+1	.12E+1	.60E+0	.3E+0	.2E+0	.4E-1
1022-1040	10	.55E+2	.62E+2	.64E+2	.51E+2	.35E+2	.11E+2	.64E+1	.36E+1	.31E+1	.20E+1	.13E+1	.58E+0	.3E+0	.2E+0	.6E-2
1042-1100	10	.64E+2	.68E+2	.68E+2	.53E+2	.36E+2	.11E+2	.70E+1	.36E+1	.31E+1	.21E+1	.14E+1	.59E+0	.46E+0	.2E+0	.0
1102-1120	10	.61E+2	.68E+2	.66E+2	.53E+2	.35E+2	.11E+2	.67E+1	.35E+1	.31E+1	.19E+1	.13E+1	.65E+0	.29E+0	.2E+0	.0
1122-1140	10	.52E+2	.64E+2	.63E+2	.48E+2	.34E+2	.10E+2	.62E+1	.32E+1	.28E+1	.19E+1	.12E+1	.51E+0	.32E+0	.1E+0	.0
1142-1200	10	.47E+2	.61E+2	.60E+2	.45E+2	.32E+2	.97E+1	.57E+1	.30E+1	.26E+1	.17E+1	.11E+1	.49E+0	.30E+0	.2E+0	.0
1202-1220	10	.52E+2	.60E+2	.57E+2	.43E+2	.32E+2	.94E+1	.57E+1	.30E+1	.27E+1	.17E+1	.12E+1	.52E+0	.33E+0	.2E+0	.4E-1
1343-1401	10	.19E+2	.24E+2	.24E+2	.18E+2	.15E+2	.50E+1	.29E+1	.15E+1	.14E+1	.97E+0	.63E+0	.25E+0	.22E+0	.1E+0	.5E-1
1403-1421	10	.22E+2	.25E+2	.26E+2	.20E+2	.18E+2	.54E+1	.33E+1	.18E+1	.16E+1	.10E+1	.67E+0	.32E+0	.22E+0	.1E+0	.5E-1
1423-1441	10	.23E+2	.25E+2	.28E+2	.21E+2	.20E+2	.55E+1	.34E+1	.17E+1	.17E+1	.10E+1	.73E+0	.32E+0	.20E+0	.1E+0	.9E-1
1443-1501	10	.22E+2	.26E+2	.31E+2	.23E+2	.22E+2	.56E+1	.37E+1	.20E+1	.18E+1	.12E+1	.87E+0	.35E+0	.22E+0	.1E+0	.9E-1
1503-1521	10	.22E+2	.28E+2	.35E+2	.26E+2	.25E+2	.65E+1	.41E+1	.22E+1	.20E+1	.13E+1	.91E+0	.37E+0	.25E+0	.15E+0	.1E+0
1523-1541	10	.26E+2	.32E+2	.39E+2	.29E+2	.27E+2	.71E+1	.46E+1	.23E+1	.23E+1	.15E+1	.99E+0	.38E+0	.26E+0	.16E+0	.1E+0
1543-1601	10	.26E+2	.32E+2	.39E+2	.28E+2	.27E+2	.68E+1	.44E+1	.23E+1	.21E+1	.14E+1	.10E+1	.38E+0	.31E+0	.17E+0	.1E+0
1603-1613	6	.23E+2	.30E+2	.37E+2	.27E+2	.26E+2	.67E+1	.43E+1	.20E+1	.20E+1	.13E+1	.98E+0	.34E+0	.26E+0	.17E+0	.9E-1
1622-1640	10	.26E+2	.36E+2	.40E+2	.29E+2	.28E+2	.81E+1	.47E+1	.27E+1	.23E+1	.16E+1	.11E+1	.49E+0	.33E+0	.21E+0	.1E+0
1642-1700	10	.26E+2	.33E+2	.39E+2	.28E+2	.27E+2	.68E+1	.45E+1	.23E+1	.21E+1	.14E+1	.10E+1	.42E+0	.29E+0	.19E+0	.1E+0
1702-1720	10	.29E+2	.36E+2	.42E+2	.31E+2	.29E+2	.75E+1	.50E+1	.28E+1	.24E+1	.16E+1	.11E+1	.41E+0	.29E+0	.17E+0	.1E+0
1722-1740	10	.27E+2	.35E+2	.44E+2	.32E+2	.30E+2	.72E+1	.50E+1	.26E+1	.23E+1	.16E+1	.11E+1	.34E+0	.29E+0	.16E+0	.1E+0
1742-1800	10	.31E+2	.37E+2	.45E+2	.33E+2	.30E+2	.72E+1	.48E+1	.26E+1	.25E+1	.16E+1	.11E+1	.34E+0	.28E+0	.19E+0	.1E+0
1802-1820	10	.31E+2	.40E+2	.45E+2	.32E+2	.28E+2	.67E+1	.48E+1	.25E+1	.24E+1	.15E+1	.10E+1	.31E+0	.27E+0	.20E+0	.9E-1
1822-1840	10	.32E+2	.41E+2	.47E+2	.33E+2	.29E+2	.69E+1	.49E+1	.27E+1	.25E+1	.15E+1	.97E+0	.35E+0	.29E+0	.17E+0	.11E+0
1842-1900	10	.31E+2	.41E+2	.46E+2	.32E+2	.28E+2	.63E+1	.48E+1	.24E+1	.23E+1	.15E+1	.92E+0	.27E+0	.25E+0	.17E+0	.8E-1

MAY 11, (DAY130) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
1842-1900	10	.31E+2	.41E+2	.46E+2	.32E+2	.28E+2	.63E+1	.48E+1	.24E+1	.23E+1	.15E+1	.92E+0	.27E+0	.25E+0	.17E+0	.86E-1
1908-1920	6	.25E+2	.34E+2	.39E+2	.27E+2	.23E+2	.53E+1	.4E+1	.2E+1	.2E+1	.1E+1	.8E+0	.3E+0	.2E+0	.2E+0	.1E+0
1922-1940	10	.30E+2	.39E+2	.46E+2	.33E+2	.28E+2	.68E+1	.49E+1	.26E+1	.25E+1	.15E+1	.10E+1	.29E+0	.26E+0	.19E+0	.1E+0
1942-2000	10	.34E+2	.41E+2	.49E+2	.37E+2	.32E+2	.77E+1	.54E+1	.31E+1	.27E+1	.17E+1	.11E+1	.43E+0	.32E+0	.21E+0	.2E+0
2002-2020	10	.36E+2	.43E+2	.49E+2	.36E+2	.31E+2	.75E+1	.53E+1	.29E+1	.26E+1	.17E+1	.11E+1	.37E+0	.29E+0	.19E+0	.15E+0
2022-2040	10	.33E+2	.42E+2	.50E+2	.36E+2	.30E+2	.75E+1	.53E+1	.28E+1	.27E+1	.17E+1	.11E+1	.36E+0	.28E+0	.20E+0	.14E+0
2042-2100	10	.35E+2	.45E+2	.51E+2	.36E+2	.31E+2	.75E+1	.54E+1	.30E+1	.27E+1	.16E+1	.11E+1	.32E+0	.25E+0	.17E+0	.91E-1
2102-2120	10	.34E+2	.44E+2	.52E+2	.38E+2	.32E+2	.77E+1	.55E+1	.30E+1	.27E+1	.18E+1	.12E+1	.35E+0	.27E+0	.19E+0	.14E+0
2122-2132	6	.33E+2	.45E+2	.52E+2	.37E+2	.31E+2	.76E+1	.55E+1	.29E+1	.27E+1	.17E+1	.10E+1	.30E+0	.28E+0	.17E+0	.12E+0
2146-2200	8	.43E+2	.54E+2	.61E+2	.43E+2	.37E+2	.96E+1	.67E+1	.36E+1	.32E+1	.20E+1	.14E+1	.43E+0	.36E+0	.22E+0	.1E+0
2203-2221	10	.63E+2	.80E+2	.80E+2	.60E+2	.41E+2	.11E+2	.70E+1	.40E+1	.32E+1	.22E+1	.14E+1	.59E+0	.38E+0	.2E+0	.1E+0
2202-2220	10	.38E+2	.53E+2	.60E+2	.42E+2	.36E+2	.89E+1	.64E+1	.34E+1	.31E+1	.20E+1	.12E+1	.36E+0	.30E+0	.18E+0	.1E+0
2223-2314	26	.64E+2	.78E+2	.76E+2	.57E+2	.37E+2	.10E+2	.66E+1	.37E+1	.32E+1	.20E+1	.14E+1	.58E+0	.37E+0	.1E+0	.3E-1
2222-2240	10	.43E+2	.55E+2	.61E+2	.44E+2	.38E+2	.93E+1	.68E+1	.37E+1	.33E+1	.20E+1	.13E+1	.40E+0	.31E+0	.17E+0	.16E+0
2242-2300	10	.43E+2	.57E+2	.63E+2	.45E+2	.38E+2	.96E+1	.68E+1	.36E+1	.33E+1	.21E+1	.13E+1	.41E+0	.31E+0	.22E+0	.17E+0
2302-2320	10	.45E+2	.53E+2	.62E+2	.45E+2	.39E+2	.97E+1	.69E+1	.37E+1	.34E+1	.21E+1	.13E+1	.42E+0	.39E+0	.23E+0	.14E+0
2322-2340	10	.45E+2	.57E+2	.62E+2	.43E+2	.37E+2	.95E+1	.68E+1	.35E+1	.32E+1	.20E+1	.12E+1	.41E+0	.32E+0	.16E+0	.12E+0
2342-2358	9	.39E+2	.51E+2	.61E+2	.44E+2	.39E+2	.97E+1	.69E+1	.36E+1	.33E+1	.20E+1	.12E+1	.41E+0	.32E+0	.21E+0	.12E+0

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0003-0052	25	.79E-1	.36E-1	.72E-2	.71E-3	.14E-2	.1E-2	.1E-2	.0	.0	.2E-3
0003-0021	10	.13E+0	.46E-1	.27E-1	.64E-2	.79E-2	.34E-2	.0	.3E-3	.1E-2	.0
0023-0041	10	.13E+0	.56E-1	.25E-1	.30E-2	.12E-1	.88E-2	.1E-2	.0	.0	.3E-3
0043-0101	10	.13E+0	.59E-1	.27E-1	.69E-2	.74E-2	.33E-2	.1E-2	.3E-3	.1E-2	.3E-3
0104-0116	7	.77E-1	.68E-2	.18E-1	.58E-3	.23E-2	.1E-2	.1E-2	.0	.0	.0
0311-0321	6	.13E+0	.48E-1	.30E-1	.16E-1	.93E-2	.5E-3	.0	.0	.0	.5E-3
0323-0341	10	.14E+0	.57E-1	.29E-1	.12E-1	.20E-1	.5E-2	.2E-2	.0	.0	.0
0343-0401	10	.13E+0	.57E-1	.31E-1	.51E-2	.75E-2	.4E-2	.5E-2	.2E-2	.6E-3	.0
0403-0421	10	.14E+0	.77E-1	.39E-1	.25E-1	.18E-1	.5E-2	.3E-3	.0	.0	.2E-2
0423-0441	10	.14E+0	.52E-1	.35E-1	.12E-1	.12E-1	.4E-2	.0	.3E-3	.3E-3	.0
0443-0501	10	.16E+0	.70E-1	.36E-1	.12E-1	.48E-2	.0	.2E-2	.3E-3	.3E-3	.0
0503-0521	10	.13E+0	.52E-1	.27E-1	.64E-2	.71E-2	.2E-2	.3E-3	.1E-2	.0	.0
0523-0541	10	.13E+0	.53E-1	.23E-1	.77E-3	.12E-2	.3E-2	.3E-2	.1E-2	.4E-3	.8E-3
0543-0601	10	.16E+0	.56E-1	.31E-1	.17E-1	.72E-2	.8E-3	.4E-3	.4E-3	.4E-3	.0
0603-0621	10	.13E+0	.58E-1	.91E-2	.57E-2	.43E-2	.6E-2	.0	.0	.0	.0
0623-0641	10	.14E+0	.55E-1	.45E-1	.79E-2	.52E-2	.5E-2	.9E-3	.5E-3	.0	.0
0643-0701	10	.15E+0	.70E-1	.30E-1	.11E-1	.13E-1	.5E-2	.9E-3	.5E-3	.0	.5E-3
0703-0721	10	.15E+0	.45E-1	.82E-2	.57E-2	.46E-3	.0	.0	.2E-2	.1E-2	.2E-2
0723-0741	10	.13E+0	.67E-1	.23E-1	.26E-2	.0	.3E-2	.5E-3	.2E-2	.0	.6E-3
0803-0821	10	.12E+0	.34E-1	.16E-1	.65E-2	.4E-2	.0	.3E-2	.0	.0	.0
0823-0841	10	.81E-1	.38E-1	.10E-1	.58E-2	.4E-2	.2E-2	.0	.0	.0	.0
0843-0901	10	.82E-1	.45E-1	.19E-1	.12E-1	.0	.0	.0	.0	.0	.0
0949-1001	7	.86E-1	.26E-1	.38E-2	.20E-2	.9E-2	.1E-2	.0	.0	.0	.0
1003-1021	10	.76E-1	.19E-1	.98E-2	.15E-2	.4E-2	.0	.7E-3	.7E-3	.0	.7E-3
1023-1041	10	.89E-1	.34E-1	.15E-1	.89E-3	.0	.0	.0	.0	.0	.0
1043-1101	10	.76E-1	.17E-1	.27E-2	.37E-2	.4E-2	.9E-3	.0	.0	.0	.0

MAY 11, (DAY131) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
1043-1101	10	.76E-1	.17E-1	.27E-2	.37E-2	.4E-2	.9E-3	.0	.0	.0	.0
1103-1121	10	.82E-1	.67E-2	.43E-2	.90E-3	.0	.9E-3	.0	.0	.0	.0
1123-1141	10	.55E-1	.77E-2	.68E-3	.72E-3	.0	.0	.0	.0	.0	.0
1143-1201	10	.82E-1	.16E-1	.0	.0	.0	.0	.0	.0	.0	.0
1203-1221	10	.83E-1	.15E-1	.18E-2	.0	.0	.0	.0	.0	.0	.0
1342-1400	10	.57E-1	.25E-1	.63E-2	.62E-2	.2E-2	.2E-2	.4E-3	.9E-3	.0	.0
1402-1420	10	.64E-1	.32E-1	.14E-1	.68E-2	.34E-2	.4E-3	.0	.4E-3	.5E-3	.0
1422-1440	10	.63E-1	.25E-1	.19E-1	.11E-2	.25E-2	.1E-2	.2E-2	.2E-2	.4E-3	.0
1442-1500	10	.72E-1	.34E-1	.18E-1	.67E-2	.37E-2	.1E-2	.7E-3	.7E-3	.0	.0
1502-1520	10	.73E-1	.37E-1	.18E-1	.63E-2	.70E-2	.0	.7E-3	.1E-2	.3E-3	.0
1522-1540	10	.93E-1	.44E-1	.26E-1	.12E-1	.13E-1	.1E-2	.3E-3	.0	.0	.0
1542-1600	10	.97E-1	.45E-1	.20E-1	.74E-2	.91E-2	.5E-2	.2E-2	.3E-3	.0	.0
1602-1612	6	.90E-1	.37E-1	.24E-1	.28E-2	.28E-2	.2E-2	.2E-2	.0	.0	.6E-3
1623-1641	10	.10E+0	.50E-1	.29E-1	.11E-1	.13E-1	.7E-2	.4E-2	.0	.4E-3	.0
1643-1701	10	.96E-1	.39E-1	.21E-1	.52E-2	.18E-2	.2E-2	.3E-2	.3E-3	.3E-3	.0
1703-1721	10	.10E+0	.41E-1	.16E-1	.36E-2	.68E-2	.87E-2	.2E-2	.1E-2	.7E-3	.3E-3
1723-1741	10	.11E+0	.48E-1	.16E-1	.55E-2	.32E-2	.29E-2	.0	.0	.3E-3	.0
1743-1801	10	.10E+0	.49E-1	.25E-1	.85E-2	.26E-2	.10E-2	.0	.1E-2	.2E-2	.3E-3
1803-1821	10	.95E-1	.45E-1	.30E-1	.11E-1	.28E-2	.15E-2	.2E-2	.3E-3	.3E-3	.0
1823-1841	10	.10E+0	.51E-1	.27E-1	.78E-2	.65E-2	.61E-2	.3E-2	.3E-3	.1E-2	.0
1843-1859	9	.11E+0	.54E-1	.28E-1	.10E-1	.36E-2	.0	.3E-3	.3E-3	.0	.0
1909-1921	6	.89E-1	.60E-1	.29E-1	.11E-1	.59E-2	.1E-1	.4E-2	.2E-2	.0	.0
1923-1941	10	.11E+0	.48E-1	.29E-1	.21E-2	.96E-2	.43E-2	.2E-2	.2E-2	.2E-2	.0
1943-2001	10	.12E+0	.59E-1	.36E-1	.66E-2	.95E-2	.27E-2	.5E-2	.1E-2	.1E-2	.0
2003-2021	10	.11E+0	.56E-1	.17E-1	.40E-2	.34E-3	.16E-2	.1E-2	.2E-2	.7E-3	.0
2023-2041	10	.12E+0	.51E-1	.36E-1	.51E-2	.84E-2	.85E-2	.4E-2	.0	.0	.3E-3
2043-2101	10	.12E+0	.49E-1	.26E-1	.83E-2	.69E-2	.36E-2	.3E-2	.6E-3	.9E-3	.6E-3
2103-2121	10	.10E+0	.60E-1	.32E-1	.18E-2	.12E-2	.0	.9E-3	.6E-3	.0	.3E-3
2145-2201	9	.13E+0	.53E-1	.26E-1	.0	.82E-2	.41E-2	.3E-3	.3E-3	.4E-3	.0
2202-2220	10	.11E+0	.39E-1	.11E-1	.39E-2	.0	.7E-3	.0	.0	.0	.0
2203-2221	10	.12E+0	.47E-1	.28E-1	.54E-2	.21E-2	.15E-2	.3E-3	.1E-2	.3E-3	.0
2222-2315	27	.93E-1	.17E-1	.80E-2	.47E-3	.94E-3	.2E-2	.1E-2	.0	.0	.2E-3
2223-2241	10	.10E+0	.53E-1	.26E-1	.20E-1	.33E-2	.36E-2	.2E-2	.9E-3	.9E-3	.3E-3
2243-2301	10	.12E+0	.50E-1	.32E-1	.12E-1	.59E-2	.16E-2	.3E-3	.6E-3	.6E-3	.0
2303-2321	10	.12E+0	.61E-1	.28E-1	.87E-2	.13E-1	.16E-2	.3E-2	.6E-3	.1E-2	.0
2323-2341	10	.13E+0	.59E-1	.20E-1	.42E-2	.56E-2	.44E-2	.3E-2	.3E-3	.6E-3	.3E-3
2343-2359	9	.14E+0	.60E-1	.27E-1	.96E-2	.12E-1	.41E-2	.6E-2	.1E-2	.0	.0

MAY 12, (DAY132) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0151-0201	6	.11E+2	.13E+2	.49E+1	.90E+0	.3E+0	.4E-1	.9E-1	.2E-1	.3E-2	.0	.0	.0	.0	.0	.0
0203-0221	10	.12E+2	.15E+2	.57E+1	.10E+1	.43E+0	.2E+0	.2E-1	.2E-1	.4E-2	.4E-2	.0	.0	.0	.0	.8E-1
0223-0235	7	.13E+2	.14E+2	.50E+1	.12E+1	.4E+0	.3E+0	.0	.0	.0	.0	.0	.0	.0	.0	.1E+0
1242-1300	10	.58E+2	.68E+2	.80E+2	.58E+2	.56E+2	.16E+2	.97E+1	.47E+1	.44E+1	.27E+1	.18E+1	.59E+0	.45E+0	.3E+0	.2E+0
1302-1320	10	.58E+2	.69E+2	.74E+2	.54E+2	.54E+2	.17E+2	.99E+1	.48E+1	.45E+1	.28E+1	.20E+1	.69E+0	.53E+0	.4E+0	.3E+0
1322-1440	40	.75E+2	.77E+2	.72E+2	.51E+2	.50E+2	.17E+2	.96E+1	.45E+1	.46E+1	.28E+1	.20E+1	.80E+0	.52E+0	.40E+0	.3E+0
1442-1500	10	.82E+2	.86E+2	.73E+2	.51E+2	.49E+2	.17E+2	.88E+1	.43E+1	.41E+1	.25E+1	.18E+1	.71E+0	.43E+0	.3E+0	.2E+0
1502-1520	10	.68E+2	.74E+2	.74E+2	.52E+2	.51E+2	.17E+2	.96E+1	.44E+1	.45E+1	.26E+1	.20E+1	.77E+0	.47E+0	.3E+0	.2E+0
1522-1540	10	.76E+2	.81E+2	.75E+2	.52E+2	.49E+2	.17E+2	.91E+1	.43E+1	.43E+1	.25E+1	.18E+1	.71E+0	.44E+0	.3E+0	.3E+0
1542-1600	10	.60E+2	.67E+2	.65E+2	.45E+2	.40E+2	.10E+2	.65E+1	.31E+1	.30E+1	.18E+1	.12E+1	.32E+0	.23E+0	.1E+0	.9E-1
1602-1800	60	.56E+2	.67E+2	.66E+2	.43E+2	.32E+2	.93E+1	.66E+1	.32E+1	.34E+1	.21E+1	.14E+1	.65E+0	.61E+0	.46E+0	.38E+0
1801-1820	10	.41E+2	.52E+2	.60E+2	.40E+2	.33E+2	.89E+1	.65E+1	.31E+1	.31E+1	.20E+1	.13E+1	.49E+0	.45E+0	.31E+0	.22E+0
1822-1840	10	.41E+2	.60E+2	.71E+2	.48E+2	.37E+2	.10E+2	.75E+1	.36E+1	.38E+1	.24E+1	.15E+1	.61E+0	.52E+0	.34E+0	.27E+0
1902-1921	20	.45E+2	.69E+2	.79E+2	.53E+2	.36E+2	.11E+2	.79E+1	.41E+1	.40E+1	.25E+1	.14E+1	.6E+0	.5E+0	.4E+0	.4E+0
1922-1941	20	.51E+2	.77E+2	.81E+2	.54E+2	.38E+2	.11E+2	.81E+1	.41E+1	.43E+1	.25E+1	.15E+1	.6E+0	.6E+0	.4E+0	.3E+0
1942-1958	17	.52E+2	.65E+2	.68E+2	.45E+2	.32E+2	.86E+1	.62E+1	.31E+1	.29E+1	.16E+1	.95E+0	.3E+0	.2E+0	.1E+0	.9E-1
2001-2020	20	.45E+2	.62E+2	.66E+2	.44E+2	.34E+2	.87E+1	.62E+1	.31E+1	.30E+1	.18E+1	.11E+1	.3E+0	.2E+0	.2E+0	.7E-1
2021-2040	20	.49E+2	.66E+2	.66E+2	.44E+2	.32E+2	.91E+1	.64E+1	.33E+1	.32E+1	.19E+1	.12E+1	.4E+0	.4E+0	.2E+0	.2E+0
2041-2100	20	.40E+2	.56E+2	.60E+2	.41E+2	.28E+2	.85E+1	.58E+1	.30E+1	.29E+1	.17E+1	.11E+1	.4E+0	.3E+0	.2E+0	.1E+0
2101-2119	19	.40E+2	.53E+2	.57E+2	.38E+2	.25E+2	.76E+1	.54E+1	.27E+1	.27E+1	.15E+1	.87E+0	.2E+0	.2E+0	.1E+0	.1E+0
2121-2138	18	.51E+2	.61E+2	.58E+2	.38E+2	.26E+2	.75E+1	.54E+1	.27E+1	.27E+1	.15E+1	.83E+0	.2E+0	.1E+0	.4E-1	.0
2141-2158	18	.71E+2	.98E+2	.11E+3	.74E+2	.56E+2	.18E+2	.13E+2	.68E+1	.66E+1	.42E+1	.29E+1	.13E+1	.14E+1	.11E+1	.8E+0
2201-2218	18	.61E+2	.80E+2	.85E+2	.57E+2	.42E+2	.13E+2	.90E+1	.47E+1	.47E+1	.28E+1	.18E+1	.73E+0	.78E+0	.56E+0	.4E+0
2221-2238	18	.68E+2	.95E+2	.10E+3	.72E+2	.56E+2	.18E+2	.13E+2	.68E+1	.70E+1	.45E+1	.29E+1	.15E+1	.15E+1	.11E+1	.97E+0
2241-2258	18	.91E+2	.14E+3	.15E+3	.11E+3	.94E+2	.30E+2	.22E+2	.11E+2	.11E+2	.74E+1	.51E+1	.27E+1	.27E+1	.22E+1	.2E+1
2301-2318	18	.63E+2	.80E+2	.82E+2	.54E+2	.39E+2	.12E+2	.84E+1	.41E+1	.41E+1	.25E+1	.15E+1	.55E+0	.47E+0	.3E+0	.2E+0
2321-2338	18	.52E+2	.63E+2	.64E+2	.42E+2	.30E+2	.84E+1	.59E+1	.29E+1	.28E+1	.15E+1	.89E+0	.2E+0	.2E+0	.8E-1	.0
2341-2358	18	.49E+2	.60E+2	.61E+2	.41E+2	.29E+2	.79E+1	.54E+1	.27E+1	.26E+1	.15E+1	.85E+0	.2E+0	.1E+0	.3E-1	.0

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0202-0220	10	.12E+2	.29E+1	.19E+1	.14E+1	.13E+1	.89E+0	.59E+0	.27E+0	.16E+0	.72E-1
0222-0234	7	.92E+1	.27E+1	.16E+1	.13E+1	.10E+1	.72E+0	.52E+0	.21E+0	.87E-1	.46E-1
1243-1301	10	.13E+0	.54E-1	.15E-1	.33E-2	.23E-2	.3E-3	.0	.3E-3	.3E-3	.0
1303-1321	10	.20E+0	.66E-1	.35E-1	.24E-1	.17E-1	.2E-1	.2E-1	.1E-1	.7E-2	.3E-3
1323-1421	30	.26E+0	.12E+0	.66E-1	.42E-1	.39E-1	.2E-1	.1E-1	.9E-2	.5E-2	.4E-2
1423-1441	10	.13E+0	.44E-1	.20E-1	.16E-2	.65E-3	.3E-2	.3E-2	.7E-3	.3E-3	.2E-2
1443-1501	10	.12E+0	.44E-1	.12E-1	.23E-2	.33E-2	.0	.0	.7E-3	.0	.3E-3
1503-1521	10	.15E+0	.42E-1	.21E-1	.65E-2	.75E-2	.7E-3	.3E-3	.1E-2	.7E-3	.3E-3
1523-1541	10	.15E+0	.60E-1	.36E-1	.75E-2	.33E-2	.7E-3	.1E-2	.0	.0	.3E-3
1543-1601	10	.64E-1	.19E-1	.16E-2	.0	.65E-3	.0	.0	.0	.0	.0
1603-1801	60	.33E+0	.17E+0	.11E+0	.52E-1	.44E-1	.27E-1	.2E-1	.1E-1	.1E-1	.4E-2
1803-1821	10	.36E+0	.16E+0	.81E-1	.22E-1	.17E-1	.52E-2	.0	.0	.3E-3	.0
1823-1841	10	.36E+0	.15E+0	.64E-1	.25E-1	.11E-1	.46E-2	.16E-2	.0	.7E-3	.3E-3
1902-1921	20	.29E+0	.11E+0	.59E-1	.18E-1	.1E-1	.7E-2	.4E-2	.3E-3	.0	.0
1922-1941	20	.25E+0	.10E+0	.69E-1	.22E-1	.3E-1	.1E-1	.1E-1	.3E-2	.0	.0
1942-1959	18	.90E-1	.20E-1	.66E-2	.0	.0	.0	.0	.0	.0	.0

MAY 12, (DAY132) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
1942-1959	18	.90E-1	.20E-1	.66E-2	.0	.0	.0	.0	.0	.0	.0
2001-2020	20	.70E-1	.17E-1	.53E-2	.56E-2	.5E-2	.3E-2	.3E-2	.0	.0	.0
2021-2040	20	.16E+0	.46E-1	.12E-1	.13E-2	.3E-2	.0	.0	.0	.0	.0
2041-2100	20	.15E+0	.54E-1	.36E-1	.18E-1	.1E-1	.7E-2	.1E-2	.1E-2	.3E-3	.0
2101-2119	19	.67E-1	.17E-1	.95E-2	.38E-2	.5E-2	.1E-2	.0	.0	.0	.0
2122-2138	17	.54E-1	.35E-2	.15E-2	.0	.4E-3	.0	.0	.0	.0	.0
2142-2158	17	.82E+0	.43E+0	.30E+0	.14F+0	.13F+0	.64E-1	.4E-1	.2E-1	.9F-2	.4E-3
2202-2218	17	.38E+0	.19E+0	.10E+0	.39F-1	.25F-1	.2E-2	.2E-2	.4E-3	.0	.0
2221-2238	18	.79E+0	.33E+0	.16E+0	.41F-1	.3AF-1	.1E-1	.8E-2	.9E-2	.4F-3	.0
2241-2258	18	.20E+1	.9AE+0	.62E+0	.25E+0	.17E+0	.AE-1	.44E-1	.0	.4E-3	.4E-3
2301-2319	19	.14E+0	.37E-1	.13E-1	.69E-3	.3F-2	.2E-2	.3E-3	.0	.0	.0
2321-2338	18	.37E-1	.26E-2	.0	.36E-3	.0	.4E-3	.0	.4E-3	.0	.0
2342-2358	17	.69E-2	.0	.0	.0	.0	.0	.0	.0	.0	.0

MAY 13, (DAY133) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0001-0018	18	.58E+2	.61E+2	.55E+2	.37E+2	.23E+2	.58E+1	.39E+1	.20E+1	.19E+1	.11E+1	.57E+0	.2E-1	.2E-1	.6E-2	.2E-1
0021-0038	18	.49E+2	.49E+2	.46E+2	.33E+2	.24E+2	.59E+1	.34E+1	.16E+1	.15E+1	.87E+0	.57E+0	.7E-1	.3E-1	.1E-1	.0
0041-0059	19	.52E+2	.52E+2	.49E+2	.35E+2	.25E+2	.59E+1	.36E+1	.17E+1	.15E+1	.91E+0	.56E+0	.8E-1	.5E-1	.1E-1	.0
0101-0120	20	.50E+2	.52E+2	.47E+2	.33E+2	.23E+2	.54E+1	.35E+1	.16E+1	.15E+1	.89E+0	.55E+0	.1E+0	.5E-1	.6E-2	.0
0121-0140	20	.52E+2	.55E+2	.56E+2	.40E+2	.30E+2	.74E+1	.49E+1	.23E+1	.22E+1	.13E+1	.76E+0	.1E+0	.6E-1	.3E-1	.0
0141-0200	20	.67E+2	.67E+2	.63E+2	.46E+2	.35E+2	.88E+1	.49E+1	.23E+1	.21E+1	.12E+1	.68E+0	.1E+0	.3E-1	.3E-1	.0
0601-0620	20	.58E+2	.70E+2	.73E+2	.50E+2	.40E+2	.11E+2	.77E+1	.38E+1	.38E+1	.21E+1	.13E+1	.4E+0	.4E+0	.2E+0	.2E+0
0621-0640	20	.96E+2	.12E+3	.13E+3	.85E+2	.70E+2	.20E+2	.15E+2	.73E+1	.77E+1	.46E+1	.31E+1	.16E+1	.1E+1	.1E+1	.9E+0
0641-0700	21	.90E+2	.10E+3	.84E+2	.52E+2	.40E+2	.11E+2	.73E+1	.35E+1	.35E+1	.21E+1	.11E+1	.28E+0	.2E+0	.8E-1	.2E-1
0701-0712	12	.73E+2	.94E+2	.86E+2	.53E+2	.44E+2	.11E+2	.76E+1	.34E+1	.35E+1	.22E+1	.13E+1	.27E+0	.24E+0	.2E+0	.4E-1
0722-0740	10	.58E+2	.77E+2	.84E+2	.55E+2	.46E+2	.11E+2	.79E+1	.37E+1	.38E+1	.23E+1	.13E+1	.4E+0	.3E+0	.2E+0	.1E+0
0742-0800	10	.56E+2	.54E+2	.51E+2	.34E+2	.22E+2	.49E+1	.34E+1	.15E+1	.15E+1	.86E+0	.40E+0	.4E-1	.9E-2	.4E-2	.0
0802-0820	10	.52E+2	.49E+2	.48E+2	.32E+2	.21E+2	.46E+1	.31E+1	.14E+1	.13E+1	.77E+0	.43E+0	.2E-1	.8E-2	.4E-2	.0
0822-0840	8	.56E+2	.59E+2	.55E+2	.38E+2	.25E+2	.64E+1	.46E+1	.21E+1	.20E+1	.11E+1	.57E+0	.7E-1	.4E-1	.8E-2	.0
0842-0900	10	.65E+2	.79E+2	.83E+2	.56E+2	.39E+2	.11E+2	.83E+1	.39E+1	.40E+1	.25E+1	.14E+1	.55E+0	.44E+0	.3E+0	.2E+0
0914-0920	7	.10E+3	.15E+3	.12E+3	.11E+3	.87E+2	.28E+2	.21E+2	.10E+2	.11E+2	.75E+1	.52E+1	.28E+1	.3E+1	.2E+1	.2E+1
0921-0937	17	.70E+2	.85E+2	.78E+2	.48E+2	.35E+2	.10E+2	.68E+1	.33E+1	.35E+1	.22E+1	.13E+1	.46E+0	.3E+0	.2E+0	.1E+0
0950-1000	11	.71E+2	.84E+2	.83E+2	.52E+2	.41E+2	.11E+2	.80E+1	.38E+1	.41E+1	.25E+1	.16E+1	.62E+0	.4E+0	.3E+0	.2E+0
1001-1010	10	.60E+2	.70E+2	.69E+2	.45E+2	.35E+2	.90E+1	.63E+1	.27E+1	.28E+1	.19E+1	.10E+1	.32E+0	.2E+0	.1E+0	.6E-1
1630-1640	11	.55E+2	.54E+2	.50E+2	.34E+2	.22E+2	.49E+1	.34E+1	.16E+1	.14E+1	.90E+0	.29E+0	.8E-2	.1E-1	.0	.0
1646-1700	8	.54E+2	.55E+2	.55E+2	.38E+2	.25E+2	.64E+1	.44E+1	.22E+1	.21E+1	.11E+1	.40E+0	.8E-1	.2E-1	.1E-2	.0
1702-1720	10	.54E+2	.63E+2	.67E+2	.46E+2	.31E+2	.83E+1	.60E+1	.28E+1	.27E+1	.15E+1	.66E+0	.1E+0	.7E-1	.4E-2	.0
1722-1740	10	.61E+2	.71E+2	.72E+2	.48E+2	.36E+2	.88E+1	.63E+1	.30E+1	.30E+1	.17E+1	.83E+0	.2E+0	.1E+0	.3E-1	.0
1742-1800	10	.60E+2	.75E+2	.80E+2	.53E+2	.38E+2	.10E+2	.74E+1	.35E+1	.33E+1	.20E+1	.10E+1	.3E+0	.2E+0	.1E+0	.1E+0
1802-1820	10	.57E+2	.78E+2	.87E+2	.58E+2	.40E+2	.11E+2	.82E+1	.38E+1	.38E+1	.22E+1	.94E+0	.3E+0	.3E+0	.2E+0	.1E+0
1822-1840	10	.62E+2	.75E+2	.79E+2	.54E+2	.36E+2	.10E+2	.72E+1	.33E+1	.32E+1	.18E+1	.71E+0	.2E+0	.2E+0	.7E-1	.3E-1
1842-1900	10	.54E+2	.67E+2	.70E+2	.48E+2	.29E+2	.85E+1	.60E+1	.29E+1	.27E+1	.14E+1	.48E+0	.2E+0	.7E-1	.3E-1	.3E-2
1902-1920	10	.50E+2	.64E+2	.63E+2	.44E+2	.29E+2	.82E+1	.55E+1	.27E+1	.22E+1	.13E+1	.46E+0	.8E-1	.6E-1	.8E-2	.0
1922-1940	10	.56E+2	.62E+2	.63E+2	.44E+2	.31E+2	.88E+1	.58E+1	.28E+1	.24E+1	.13E+1	.46E+0	.1E+0	.6E-1	.9E-3	.0
1942-2000	10	.67E+2	.63E+2	.51E+2	.35E+2	.23E+2	.59E+1	.35E+1	.18E+1	.15E+1	.77E+0	.23E+0	.1E-1	.1E-1	.2E-2	.0
2002-2020	10	.70E+2	.57E+2	.44E+2	.30E+2	.19E+2	.48E+1	.30E+1	.14E+1	.13E+1	.68E+0	.18E+0	.6E-2	.6E-2	.0	.0
2022-2036	8	.10E+3	.79E+2	.49E+2	.32E+2	.19E+2	.53E+1	.33E+1	.15E+1	.14E+1	.60E+0	.15E+0	.7E-2	.6E-2	.9E-2	.0
2042-2058	9	.15E+3	.12E+3	.98E+2	.77E+2	.47E+2	.17E+2	.12E+2	.61E+1	.47E+1	.26E+1	.13E+1	.4E+0	.3E+0	.2E+0	.0
2208-2220	7	.26E+3	.18E+3	.72E+2	.51E+2	.35E+2	.17E+2	.10E+2	.55E+1	.4E+1	.23E+1	.14E+1	.4E+0	.4E+0	.1E+0	.0
2222-2240	10	.31E+3	.22E+3	.78E+2	.50E+2	.35E+2	.19E+2	.10E+2	.53E+1	.40E+1	.28E+1	.18E+1	.9E+0	.6E+0	.4E+0	.2E+0
2242-2300	10	.25E+3	.14E+3	.67E+2	.56E+2	.39E+2	.17E+2	.11E+2	.58E+1	.43E+1	.27E+1	.17E+1	.52E+0	.2E+0	.2E+0	.3E-1
2302-2320	10	.23E+3	.16E+3	.92E+2	.70E+2	.47E+2	.20E+2	.13E+2	.62E+1	.49E+1	.32E+1	.17E+1	.66E+0	.4E+0	.2E+0	.3E-2
2322-2340	10	.24E+3	.17E+3	.11E+3	.81E+2	.54E+2	.24E+2	.15E+2	.77E+1	.61E+1	.38E+1	.23E+1	.73E+0	.59E+0	.37E+0	.1E+0
2342-2358	9	.41E+3	.28E+3	.13E+3	.84E+2	.59E+2	.28E+2	.17E+2	.83E+1	.67E+1	.40E+1	.21E+1	.73E+0	.80E+0	.53E+0	.2E+0

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0002-0018	17	.38E-3	.0	.0	.77E-3	.4E-3	.0	.4E-3	.0	.0	.0
0021-0038	18	.87E-2	.30E-2	.0	.0	.0	.0	.0	.0	.0	.0
0042-0059	18	.62E-2	.36E-2	.0	.0	.0	.0	.0	.0	.0	.0
0102-0121	20	.11E-1	.30E-3	.0	.0	.3E-3	.0	.0	.0	.0	.0
0122-0141	20	.11E-1	.15E-2	.62E-3	.0	.0	.3E-3	.0	.0	.0	.0

MAY 13, (DAY133) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0122-0141	20	.11E-1	.15E-2	.62E-3	.0	.0	.3E-3	.0	.0	.0	.0
0142-0200	19	.34E-3	.13E-2	.33E-3	.14F-2	.0	.0	.0	.0	.0	.0
0601-0620	20	.66E-1	.22E-1	.16E-2	.13E-2	.0	.0	.3E-3	.0	.0	.0
0621-0640	20	.66E+0	.37E+0	.18E+0	.79E-1	.1E+0	.7E-1	.3E-1	.2E-1	.1E-1	.6E-2
0641-0700	20	.56E-1	.77E-2	.16E-2	.98E-3	.0	.0	.0	.0	.0	.0
0701-0712	12	.60E-1	.12E-1	.52E-3	.0	.0	.5E-3	.0	.0	.0	.0
0723-0741	10	.61E-1	.23E-1	.31E-2	.13E-2	.0	.0	.0	.0	.0	.0
0743-0801	10	.20E-2	.0	.0	.0	.0	.0	.0	.0	.0	.0
0603-0821	10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
0823-0841	8	.27E-1	.11E-1	.0	.0	.4E-3	.4E-3	.4E-3	.0	.0	.0
0843-0901	10	.13E+0	.52E-1	.19E-1	.46E-2	.1E-2	.0	.2E-2	.0	.0	.0
0914-0920	7	.56E+0	.23F+0	.54E-1	.21E-1	.2E-1	.9E-3	.0	.0	.0	.0
0921-0937	17	.83E-1	.12E-1	.15E-2	.38E-3	.0	.4E-3	.0	.4E-3	.0	.0
0950-1000	11	.19E+0	.72E-1	.23E-2	.0	.0	.0	.0	.0	.0	.0
1001-1010	10	.58E-1	.30E-2	.0	.0	.0	.0	.0	.0	.0	.0
1630-1640	11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1647-1701	8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1703-1721	10	.98E-2	.59E-3	.0	.0	.0	.0	.0	.0	.0	.0
1723-1741	10	.16E-1	.59E-3	.31E-3	.0	.0	.0	.0	.0	.0	.0
1743-1801	10	.42E-1	.39E-2	.12E-2	.33E-3	.0	.0	.0	.0	.0	.0
1803-1821	10	.48E-1	.15E-2	.0	.0	.0	.0	.0	.0	.0	.0
1823-1841	10	.33E-1	.15E-2	.62E-3	.0	.0	.0	.0	.3E-3	.0	.0
1843-1901	10	.98E-2	.12E-2	.0	.0	.0	.0	.0	.0	.0	.0
1903-1921	10	.65E-3	.0	.0	.0	.0	.0	.0	.0	.0	.0
1923-1941	10	.36E-2	.0	.0	.0	.0	.0	.0	.0	.0	.0
1943-2001	10	.33E-3	.0	.0	.0	.0	.0	.0	.0	.0	.0
2003-2021	10	.65E-3	.0	.0	.0	.0	.0	.0	.0	.0	.0
2023-2035	7	.19E-2	.0	.0	.0	.0	.0	.0	.0	.0	.0
2043-2057	8	.23E-1	.37E-2	.13E-2	.50E-2	.0	.0	.0	.0	.0	.0
2131-2141	6	.33E-1	.0	.0	.0	.0	.0	.0	.0	.0	.2E-2
2207-2221	8	.57E-1	.38E-1	.86E-2	.0	.0	.0	.0	.0	.0	.0
2223-2241	10	.20E+0	.84E-1	.30E-1	.19E-1	.1E-2	.9E-2	.0	.0	.0	.0
2243-2301	10	.85E-1	.62E-2	.11E-1	.0	.0	.0	.0	.0	.0	.0
2303-2321	10	.63E-1	.88E-2	.11E-2	.97E-3	.0	.0	.0	.0	.0	.0
2323-2341	10	.94E-1	.27E-1	.62E-2	.40E-2	.0	.0	.0	.0	.0	.0
2343-2359	9	.18E+0	.40E-1	.12E-1	.21E-2	.0	.0	.0	.0	.0	.1E-2

MAY 14, (DAY134) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0002-0045	22	.48E+3	.26E+3	.17E+3	.11E+3	.76E+2	.31E+2	.19E+2	.89E+1	.74E+1	.44E+1	.27E+1	.12E+1	.11E+1	.73E+0	.4E+0
0211-0221	6	.17E+3	.11E+3	.46E+2	.36E+2	.27E+2	.12E+2	.69E+1	.35E+1	.26E+1	.18E+1	.11E+1	.3E+0	.2E+0	.8E-1	.0
0223-0310	25	.32E+3	.21E+3	.68E+2	.42E+2	.30E+2	.17E+2	.91E+1	.43E+1	.35E+1	.23E+1	.17E+1	.7E+0	.5E+0	.4E+0	.2E+0
0342-0400	10	.19E+3	.13E+3	.64E+2	.46E+2	.29E+2	.13E+2	.74E+1	.39E+1	.31E+1	.20E+1	.13E+1	.5E+0	.4E+0	.2E+0	.1E+0
1003-1021	55	.52E+3	.48E+3	.22E+3	.11E+3	.80E+2	.17E+2	.79E+1	.33E+1	.35E+1	.22E+1	.14E+1	.5E+0	.6E+0	.5E+0	.3E+0
1022-1027	18	.46E+3	.39E+3	.17E+3	.82E+2	.62E+2	.16E+2	.90E+1	.40E+1	.41E+1	.25E+1	.18E+1	.8E+0	.8E+0	.7E+0	.3E+0
1029-1037	27	.34E+3	.25E+3	.11E+3	.53E+2	.43E+2	.13E+2	.75E+1	.34E+1	.37E+1	.21E+1	.12E+1	.5E+0	.5E+0	.3E+0	.3E+0
1108-1119	35	.24E+3	.15E+3	.58E+2	.28E+2	.19E+2	.48E+1	.29E+1	.13E+1	.12E+1	.6E+0	.2E+0	.7E-1	.6E-1	.1E-1	.0
1121-1139	56	.26E+3	.17E+3	.66E+2	.32E+2	.23E+2	.62E+1	.39E+1	.16E+1	.16E+1	.9E+0	.3E+0	.8E-1	.6E-1	.5E-1	.2E-1
1141-1159	56	.38E+3	.28E+3	.12E+3	.55E+2	.43E+2	.12E+2	.78E+1	.35E+1	.35E+1	.22E+1	.12E+1	.5E+0	.6E+0	.4E+0	.2E+0
1201-1219	56	.41E+3	.28E+3	.10E+3	.46E+2	.34E+2	.96E+1	.56E+1	.25E+1	.25E+1	.15E+1	.9E+0	.3E+0	.3E+0	.2E+0	.7E-1
1221-1239	19	.40E+3	.25E+3	.93E+2	.42E+2	.30E+2	.78E+1	.51E+1	.21E+1	.21E+1	.13E+1	.72E+0	.3E+0	.3E+0	.2E+0	.1E+0
1241-1259	19	.34E+3	.20E+3	.72E+2	.32E+2	.21E+2	.53E+1	.32E+1	.13E+1	.13E+1	.73E+0	.31E+0	.7E-1	.4E-1	.1E-2	.0
1322-1338	17	.34E+3	.24E+3	.89E+2	.39E+2	.25E+2	.62E+1	.39E+1	.16E+1	.18E+1	.87E+0	.36E+0	.7E-1	.4E-1	.3E-1	.0
1341-1358	18	.33E+3	.21E+3	.77E+2	.34E+2	.20E+2	.47E+1	.30E+1	.12E+1	.12E+1	.68E+0	.23E+0	.4E-1	.7E-1	.1E-1	.0
1401-1418	18	.32E+3	.22E+3	.80E+2	.36E+2	.22E+2	.55E+1	.35E+1	.15E+1	.15E+1	.77E+0	.37E+0	.8E-1	.7E-1	.6E-1	.2E-1
1421-1440	20	.23E+3	.16E+3	.67E+2	.32E+2	.22E+2	.57E+1	.37E+1	.17E+1	.17E+1	.10E+1	.51E+0	.2E+0	.3E+0	.2E+0	.2E+0
1441-1500	20	.17E+3	.12E+3	.58E+2	.29E+2	.21E+2	.49E+1	.34E+1	.14E+1	.15E+1	.77E+0	.40E+0	.6E-1	.6E-1	.4E-1	.3E-1
1501-1520	20	.15E+3	.13E+3	.72E+2	.39E+2	.27E+2	.73E+1	.49E+1	.21E+1	.21E+1	.11E+1	.49E+0	.1E+0	.7E-1	.3E-1	.0
1521-1540	20	.15E+3	.13E+3	.72E+2	.40E+2	.27E+2	.77E+1	.53E+1	.23E+1	.23E+1	.13E+1	.50E+0	.1E+0	.8E-1	.6E-1	.0
1541-1600	20	.23E+3	.19E+3	.91E+2	.47E+2	.33E+2	.99E+1	.67E+1	.30E+1	.28E+1	.16E+1	.72E+0	.30E+0	.2E+0	.2E+0	.1E-1
1601-1620	20	.19E+3	.17E+3	.85E+2	.47E+2	.35E+2	.11E+2	.75E+1	.35E+1	.33E+1	.18E+1	.94E+0	.37E+0	.34E+0	.2E+0	.6E-1
1621-1640	20	.94E+2	.89E+2	.62E+2	.40E+2	.32E+2	.11E+2	.74E+1	.34E+1	.33E+1	.18E+1	.10E+1	.41E+0	.41E+0	.2E+0	.1E+0
1641-1700	20	.13E+3	.11E+3	.69E+2	.41E+2	.33E+2	.11E+2	.73E+1	.35E+1	.33E+1	.19E+1	.95E+0	.40E+0	.35E+0	.23E+0	.2E+0
1743-1801	10	.47E+2	.30E+2	.19E+2	.15E+2	.11E+2	.40E+1	.25E+1	.12E+1	.11E+1	.72E+0	.40E+0	.2E+0	.4E-1	.8E-2	.0
1803-1817	8	.38E+2	.25E+2	.16E+2	.13E+2	.98E+1	.36E+1	.26E+1	.13E+1	.10E+1	.53E+0	.46E+0	.9E-1	.7E-1	.2E-1	.0
1823-1841	10	.63E+2	.41E+2	.50E+2	.14E+2	.18E+2	.28E+2	.16E+2	.27E+2	.13E+2	.14E+2	.72E+1	.5E+1	.2E+1	.4E-1	.2E-1
1843-1857	8	.91E+2	.32E+2	.19E+2	.14E+2	.10E+2	.42E+1	.31E+1	.27E+2	.42E+1	.34E+1	.25E+2	.2E+0	.8E-1	.1E-1	.2E-1
1903-1921	10	.67E+2	.36E+2	.21E+2	.17E+2	.12E+2	.48E+1	.32E+1	.16E+1	.14E+1	.78E+0	.45E+0	.2E+0	.9E-1	.2E-2	.0
1923-1941	10	.72E+2	.41E+2	.22E+2	.17E+2	.11E+2	.47E+1	.32E+1	.16E+1	.15E+1	.80E+0	.35E+0	.1E+0	.1E+0	.4E-1	.0
1943-1957	8	.10E+3	.52E+2	.18E+2	.12E+2	.80E+1	.39E+1	.27E+1	.14E+1	.16E+1	.44E+1	.14E+1	.9E-1	.1E+0	.6E-1	.0
2342-2358	9	.91E+2	.49E+2	.32E+2	.19E+2	.13E+2	.50E+1	.34E+1	.17E+1	.14E+1	.76E+0	.34E+0	.15E+0	.1E+0	.1E+0	.6E-1

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0004-0044	21	.24E+0	.70E-1	.16E-1	.77E-3	.42E-3	.8E-3	.0	.0	.0	.0
0210-0220	6	.59E-1	.89E-2	.0	.19E-2	.0	.0	.0	.0	.0	.0
0222-0309	25	.28E+0	.14E+0	.61E-1	.11E-1	.9E-2	.3E-2	.6E-3	.0	.0	.0
0343-0401	10	.19E+0	.75E-1	.45E-1	.55E-2	.9E-2	.0	.1E-2	.0	.0	.0
1222-1239	18	.73E-1	.36E-1	.10E-1	.0	.0	.0	.0	.0	.0	.0
1242-1259	18	.73E-3	.33E-3	.0	.36E-3	.0	.0	.0	.0	.0	.0
1322-1339	18	.12E-1	.66E-2	.69E-3	.18E-2	.0	.0	.0	.0	.0	.0
1341-1359	19	.20E-1	.14E-1	.75E-2	.0	.3E-3	.0	.0	.0	.0	.0
1401-1419	19	.24E-1	.17E-1	.20E-2	.69E-3	.0	.0	.0	.0	.0	.0
1421-1440	20	.78E-1	.56E-1	.22E-1	.59E-2	.6E-2	.2E-2	.3E-3	.3E-3	.0	.0
1441-1500	20	.29E-1	.24E-1	.12E-1	.98E-3	.6E-2	.3E-3	.0	.0	.0	.0
1501-1520	20	.22E-1	.30E-2	.19E-2	.33E-3	.0	.0	.0	.0	.0	.0

MAY 14, (DAY134) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
1501-1520	20	.22E-1	.30E-2	.19E-2	.33E-3	.0	.0	.0	.0	.0	.0
1521-1540	20	.23E-1	.45E-2	.62E-3	.33E-3	.0	.0	.0	.0	.0	.0
1541-1600	20	.51E-1	.23E-1	.44E-2	.65E-3	.0	.0	.0	.0	.0	.0
1601-1620	20	.67E-1	.21E-1	.10E-1	.59E-2	.4E-2	.2E-2	.3E-3	.7E-3	.0	.0
1621-1640	20	.11E+0	.48E-1	.19E-1	.46E-2	.36E-2	.3E-2	.3E-3	.0	.0	.0
1641-1700	20	.10E+0	.53E-1	.14E-1	.23E-2	.46E-2	.3E-2	.3E-3	.0	.0	.0
1742-1800	10	.18E-1	.57E-2	.47E-2	.63E-3	.0	.7E-3	.7E-3	.0	.0	.0
1802-1818	9	.18E-1	.23E-2	.80E-3	.17E-2	.9E-3	.0	.0	.0	.0	.0
1822-1840	10	.98E-2	.89E-2	.0	.0	.0	.0	.0	.0	.0	.0
1842-1858	9	.22E-1	.59E-2	.34E-2	.0	.0	.0	.0	.0	.0	.0
1902-1920	10	.12E-1	.14E-2	.36E-2	.30E-2	.0	.0	.0	.0	.0	.0
1922-1940	10	.0	.31E-2	.48E-2	.40E-2	.0	.0	.0	.0	.0	.0
1942-1958	9	.28E-1	.12E-2	.0	.0	.0	.1E-2	.0	.0	.0	.0
2343-2359	9	.47E-1	.12E-1	.14E-2	.41E-2	.19E-2	.0	.0	.0	.4E-3	.0

AVERAGING INT.(PST)	NO. OF SAMPLES	4.50	6.00	7.50	9.00	10.50	12.00	13.50	15.00	16.50	18.00	19.50	21.00
1003-1021	54	.29E+0	.85E-1	.1E-1	.9E-2	.1E-2	.0	.2E-3	.2E-3	.0	.0	.0	.0
1029-1037	27	.14E+0	.54E-1	.3E-1	.7E-2	.0	.0	.0	.0	.0	.0	.0	.0
1022-1027	18	.47E+0	.15E+0	.6E-1	.3E-1	.0	.0	.7E-3	.0	.0	.0	.0	.0
1108-1119	36	.20E-1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1121-1139	57	.32E-2	.22E-3	.2E-3	.0	.0	.0	.0	.0	.0	.0	.0	.0
1141-1159	57	.22E+0	.72E-1	.2E-1	.1E-1	.1E-2	.0	.0	.0	.0	.0	.0	.0
1201-1219	56	.12E+0	.47E-1	.1E-1	.5E-2	.1E-2	.0	.0	.0	.0	.0	.0	.0

MAY 15. (DAY135) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0002-0020	10	.85E+2	.51E+2	.33E+2	.21E+2	.14E+2	.55E+1	.38E+1	.18E+1	.15E+1	.18E+1	.65E+0	.19E+0	.18E+0	.1E+0	.9E-1
0026-0040	8	.71E+2	.45E+2	.28E+2	.17E+2	.11E+2	.42E+1	.29E+1	.14E+1	.12E+1	.66E+0	.29E+0	.1E+0	.1E+0	.8E-1	.8E-1
0042-0100	10	.54E+2	.41E+2	.29E+2	.18E+2	.11E+2	.44E+1	.31E+1	.14E+1	.13E+1	.70E+0	.28E+0	.12E+0	.14E+0	.9E-1	.6E-1
0102-0120	10	.60E+2	.35E+2	.25E+2	.16E+2	.98E+1	.39E+1	.26E+1	.13E+1	.11E+1	.60E+0	.23E+0	.8E-1	.9E-1	.7E-1	.4E-1
0122-0140	10	.59E+2	.34E+2	.24E+2	.15E+2	.98E+1	.37E+1	.26E+1	.12E+1	.11E+1	.61E+0	.27E+0	.1E+0	.1E+0	.6E-1	.4E-1
0142-0200	10	.45E+2	.37E+2	.25E+2	.15E+2	.97E+1	.38E+1	.26E+1	.13E+1	.11E+1	.60E+0	.22E+0	.1E+0	.9E-1	.7E-1	.2E-1
0202-0220	10	.45E+2	.36E+2	.25E+2	.16E+2	.96E+1	.38E+1	.26E+1	.13E+1	.11E+1	.58E+0	.24E+0	.9E-1	.1E+0	.6E-1	.8E-3
0222-0240	10	.81E+2	.47E+2	.30E+2	.17E+2	.11E+2	.42E+1	.30E+1	.15E+1	.12E+1	.64E+0	.25E+0	.98E-1	.1E+0	.8E-1	.6E-1
0242-0300	10	.48E+2	.39E+2	.29E+2	.18E+2	.11E+2	.43E+1	.30E+1	.15E+1	.13E+1	.71E+0	.25E+0	.14E+0	.9E-1	.8E-1	.5E-1
0302-0320	10	.47E+2	.41E+2	.30E+2	.19E+2	.12E+2	.47E+1	.32E+1	.15E+1	.13E+1	.70E+0	.31E+0	.2E+0	.1E+0	.1E+0	.5E-1
0322-0340	10	.81E+2	.44E+2	.27E+2	.16E+2	.10E+2	.39E+1	.27E+1	.13E+1	.11E+1	.58E+0	.25E+0	.1E+0	.1E+0	.8E-1	.5E-1
0342-0400	10	.53E+2	.33E+2	.22E+2	.14E+2	.87E+1	.32E+1	.23E+1	.11E+1	.99E+0	.51E+0	.23E+0	.9E-1	.9E-1	.6E-1	.2E-1
0422-0440	10	.34E+2	.29E+2	.22E+2	.14E+2	.91E+1	.34E+1	.24E+1	.11E+1	.10E+1	.52E+0	.19E+0	.92E-1	.8E-1	.7E-1	.0
0502-0520	10	.61E+2	.39E+2	.25E+2	.15E+2	.89E+1	.34E+1	.24E+1	.12E+1	.11E+1	.62E+0	.21E+0	.9E-1	.9E-1	.4E-1	.1E-2
0522-0540	10	.45E+2	.35E+2	.24E+2	.15E+2	.96E+1	.34E+1	.25E+1	.12E+1	.11E+1	.64E+0	.25E+0	.1E+0	.9E-1	.8E-1	.5E-2
0542-0600	10	.58E+2	.40E+2	.25E+2	.15E+2	.10E+2	.33E+1	.24E+1	.12E+1	.11E+1	.60E+0	.35E+0	.1E+0	.1E+0	.7E-1	.2E-1
0602-0620	10	.46E+2	.33E+2	.22E+2	.14E+2	.94E+1	.33E+1	.22E+1	.12E+1	.10E+1	.57E+0	.30E+0	.1E+0	.8E-1	.3E-2	.9E-2
0622-0640	10	.44E+2	.28E+2	.19E+2	.12E+2	.88E+1	.30E+1	.21E+1	.11E+1	.95E+0	.61E+0	.32E+0	.9E-1	.6E-1	.4E-1	.2E-1
0642-0700	10	.28E+2	.22E+2	.16E+2	.11E+2	.82E+1	.28E+1	.19E+1	.96E+0	.87E+0	.51E+0	.33E+0	.8E-1	.5E-1	.3E-1	.0
0702-0720	10	.38E+2	.26E+2	.17E+2	.11E+2	.83E+1	.30E+1	.20E+1	.96E+0	.82E+0	.50E+0	.30E+0	.1E+0	.6E-1	.3E-2	.0
0722-0740	10	.56E+2	.31E+2	.20E+2	.13E+2	.11E+2	.34E+1	.23E+1	.12E+1	.10E+1	.61E+0	.37E+0	.1E+0	.7E-1	.7E-1	.0
0742-0800	10	.63E+2	.31E+2	.19E+2	.11E+2	.83E+1	.27E+1	.19E+1	.86E+0	.75E+0	.47E+0	.22E+0	.1E+0	.7E-1	.5E-1	.2E-1
0802-0820	10	.56E+2	.30E+2	.17E+2	.11E+2	.77E+1	.26E+1	.18E+1	.86E+0	.78E+0	.43E+0	.23E+0	.88E-1	.7E-1	.3E-1	.3E-1
1023-1041	10	.29E+2	.24E+2	.19E+2	.12E+2	.86E+1	.27E+1	.19E+1	.98E+0	.90E+0	.48E+0	.30E+0	.8E-1	.7E-1	.4E-1	.0
1043-1101	10	.30E+2	.27E+2	.20E+2	.13E+2	.88E+1	.28E+1	.21E+1	.11E+1	.92E+0	.56E+0	.27E+0	.8E-1	.7E-1	.2E-1	.2E-1
1103-1121	10	.42E+2	.32E+2	.23E+2	.14E+2	.98E+1	.32E+1	.24E+1	.11E+1	.10E+1	.57E+0	.30E+0	.10E+0	.9E-1	.7E-1	.5E-1
1231-1241	6	.35E+2	.32E+2	.27E+2	.18E+2	.13E+2	.38E+1	.28E+1	.13E+1	.13E+1	.68E+0	.41E+0	.13E+0	.9E-1	.6E-1	.3E-1
1243-1301	8	.54E+2	.46E+2	.32E+2	.19E+2	.14E+2	.44E+1	.29E+1	.14E+1	.13E+1	.73E+0	.40E+0	.15E+0	.1E+0	.8E-1	.4E-1
1303-1319	9	.37E+2	.35E+2	.30E+2	.20E+2	.14E+2	.40E+1	.29E+1	.15E+1	.13E+1	.82E+0	.44E+0	.15E+0	.1E+0	.9E-1	.4E-1
1323-1341	10	.42E+2	.42E+2	.34E+2	.22E+2	.15E+2	.43E+1	.31E+1	.15E+1	.15E+1	.81E+0	.46E+0	.15E+0	.1E+0	.8E-1	.5E-1
1343-1401	10	.58E+2	.58E+2	.40E+2	.24E+2	.16E+2	.47E+1	.33E+1	.16E+1	.16E+1	.87E+0	.47E+0	.13E+0	.1E+0	.8E-1	.7E-1
1403-1421	10	.41E+2	.46E+2	.38E+2	.24E+2	.15E+2	.46E+1	.31E+1	.17E+1	.16E+1	.90E+0	.45E+0	.95E-1	.8E-1	.7E-1	.7E-1
1423-1441	10	.46E+2	.56E+2	.43E+2	.25E+2	.14E+2	.47E+1	.35E+1	.17E+1	.17E+1	.99E+0	.47E+0	.12E+0	.11E+0	.11E+0	.70E-1
1443-1459	9	.39E+2	.49E+2	.44E+2	.27E+2	.15E+2	.52E+1	.39E+1	.18E+1	.19E+1	.11E+1	.57E+0	.15E+0	.19E+0	.11E+0	.70E-1
1503-1521	10	.42E+2	.56E+2	.42E+2	.24E+2	.14E+2	.49E+1	.34E+1	.17E+1	.17E+1	.92E+0	.40E+0	.13E+0	.12E+0	.95E-1	.7E-1
1523-1541	10	.47E+2	.62E+2	.48E+2	.28E+2	.16E+2	.55E+1	.40E+1	.18E+1	.19E+1	.11E+1	.51E+0	.17E+0	.14E+0	.12E+0	.1E+0
1543-1601	10	.47E+2	.65E+2	.47E+2	.27E+2	.16E+2	.55E+1	.38E+1	.20E+1	.19E+1	.11E+1	.52E+0	.16E+0	.15E+0	.13E+0	.10E+0
1603-1621	10	.47E+2	.65E+2	.49E+2	.28E+2	.16E+2	.55E+1	.40E+1	.20E+1	.20E+1	.11E+1	.53E+0	.20E+0	.17E+0	.17E+0	.14E+0
1623-1641	10	.50E+2	.64E+2	.49E+2	.28E+2	.16E+2	.56E+1	.39E+1	.20E+1	.20E+1	.12E+1	.51E+0	.20E+0	.17E+0	.14E+0	.11E+0
1643-1701	10	.52E+2	.71E+2	.52E+2	.30E+2	.17E+2	.60E+1	.42E+1	.22E+1	.21E+1	.12E+1	.55E+0	.19E+0	.18E+0	.16E+0	.14E+0
1703-1721	10	.53E+2	.71E+2	.52E+2	.30E+2	.18E+2	.60E+1	.42E+1	.22E+1	.22E+1	.12E+1	.57E+0	.20E+0	.21E+0	.16E+0	.13E+0
1723-1741	10	.54E+2	.70E+2	.51E+2	.30E+2	.17E+2	.59E+1	.43E+1	.22E+1	.21E+1	.12E+1	.57E+0	.18E+0	.21E+0	.17E+0	.16E+0
1803-1821	10	.57E+2	.85E+2	.58E+2	.32E+2	.18E+2	.70E+1	.49E+1	.25E+1	.24E+1	.13E+1	.54E+0	.24E+0	.24E+0	.22E+0	.18E+0
1843-1901	10	.69E+2	.10E+3	.64E+2	.33E+2	.18E+2	.74E+1	.51E+1	.25E+1	.25E+1	.12E+1	.43E+0	.23E+0	.24E+0	.21E+0	.19E+0
1903-1921	10	.67E+2	.98E+2	.64E+2	.34E+2	.18E+2	.74E+1	.54E+1	.26E+1	.25E+1	.13E+1	.46E+0	.22E+0	.27E+0	.24E+0	.20E+0
2005-2021	17	.74E+2	.11E+3	.71E+2	.38E+2	.20E+2	.79E+1	.56E+1	.28E+1	.26E+1	.14E+1	.47E+0	.27E+0	.26E+0	.23E+0	.16E+0

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AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
2005-2021	17	.74E+2	.11E+3	.71E+2	.38E+2	.20F+2	.79E+1	.56E+1	.28E+1	.26E+1	.14E+1	.47E+0	.27E+0	.26E+0	.23E+0	.18E+0
2022-2041	20	.76E+2	.11E+3	.75E+2	.39E+2	.21F+2	.80E+1	.57E+1	.28E+1	.26E+1	.14E+1	.49E+0	.28E+0	.28E+0	.24E+0	.17E+0
2042-2101	20	.84E+2	.12E+3	.79E+2	.40E+2	.22F+2	.82E+1	.58E+1	.29E+1	.27E+1	.14E+1	.51E+0	.27E+0	.26E+0	.22E+0	.19E+0
2102-2121	20	.80F+2	.12E+3	.75E+2	.40E+2	.21F+2	.82E+1	.57E+1	.27F+1	.26E+1	.14E+1	.49E+0	.28E+0	.26E+0	.25E+0	.20E+0
2122-2141	20	.84E+2	.12E+3	.78E+2	.41F+2	.22F+2	.82E+1	.58E+1	.29F+1	.28E+1	.13E+1	.49E+0	.26E+0	.25E+0	.25E+0	.17E+0
2142-2201	20	.83E+2	.12E+3	.77E+2	.41E+2	.21F+2	.84E+1	.58E+1	.28F+1	.28E+1	.13F+1	.50E+0	.29E+0	.26E+0	.22E+0	.20E+0
2202-2221	20	.83E+2	.12E+3	.79E+2	.41F+2	.22F+2	.85E+1	.60E+1	.28F+1	.28E+1	.14E+1	.51F+0	.26E+0	.27E+0	.25E+0	.20E+0
2222-2241	20	.81E+2	.12E+3	.78E+2	.43F+2	.23F+2	.87E+1	.61E+1	.30F+1	.29E+1	.15E+1	.52F+0	.30E+0	.26E+0	.26E+0	.19E+0
2242-2301	20	.86E+2	.12E+3	.81E+2	.44E+2	.24E+2	.88E+1	.62E+1	.30F+1	.29E+1	.14E+1	.54E+0	.30E+0	.29E+0	.25E+0	.19E+0
2302-2321	20	.81E+2	.12E+3	.82E+2	.44F+2	.24F+2	.91E+1	.65F+1	.31F+1	.30E+1	.15E+1	.52F+0	.34E+0	.30F+0	.27E+0	.20E+0
2322-2341	20	.85E+2	.12E+3	.82E+2	.45E+2	.24E+2	.88E+1	.63E+1	.31E+1	.29E+1	.14E+1	.54E+0	.32E+0	.29E+0	.27E+0	.19E+0
2342-2359	18	.88E+2	.13E+3	.83E+2	.46E+2	.25F+2	.90E+1	.62E+1	.30F+1	.29E+1	.15E+1	.55F+0	.33E+0	.28E+0	.20E+0	.19E+0

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0003-0021	10	.63E-1	.28E-1	.35E-2	.13E-2	.13E-2	.3E-2	.3E-3	.0	.3E-3	.0
0027-0041	8	.55E-1	.0	.28E-2	.13E-2	.0	.0	.0	.0	.0	.0
0043-0059	9	.51E-1	.16E-1	.18E-2	.19E-2	.0	.0	.0	.4E-3	.0	.0
0103-0121	10	.31E-1	.19E-1	.44E-2	.52E-2	.5E-2	.5E-2	.5E-2	.0	.2E-2	.0
0123-0141	10	.36E-1	.13E-1	.0	.0	.0	.3E-3	.6E-3	.0	.0	.0
0143-0201	10	.35E-1	.69E-2	.14E-2	.29F-3	.0	.0	.0	.0	.0	.0
0203-0221	10	.36E-1	.74E-2	.25E-2	.29E-3	.23F-2	.0	.0	.0	.3E-3	.0
0223-0241	10	.34E-1	.95E-2	.0	.29E-3	.58E-3	.0	.0	.0	.0	.0
0243-0259	9	.40E-1	.18E-1	.0	.26E-2	.0	.3E-3	.0	.0	.0	.0
0303-0321	10	.32E-1	.20E-1	.61E-2	.13E-1	.5E-2	.5E-2	.5E-2	.0	.2E-2	.0
0323-0341	10	.31E-1	.13E-1	.0	.35E-2	.0	.2E-2	.3E-3	.0	.0	.0
0343-0401	10	.13E-1	.17E-2	.0	.32E-3	.0	.0	.0	.0	.0	.0
0411-0421	6	.38E+0	.13E+0	.10E+0	.61E-1	.6E-1	.4E-1	.3E-1	.0	.7E-2	.0
0423-0441	10	.34E-1	.58E-2	.27E-3	.84E-3	.0	.0	.0	.0	.0	.0
0451-0501	6	.48E+0	.17E+0	.13E+0	.81E-1	.8E-1	.5E-1	.3E-1	.0	.9E-2	.0
0503-0521	10	.34E-1	.16E-1	.0	.0	.0	.0	.0	.0	.0	.0
0523-0541	10	.43E-1	.1[illegible]E-1	.44E-2	.0	.0	.0	.2E-2	.0	.0	.0
0543-0601	10	.35E-1	.32E-2	.10E-2	.0	.2E-2	.0	.0	.0	.0	.4E-3
0603-0621	10	.38E-1	.0	.24E-2	.0	.0	.0	.0	.0	.0	.0
0623-0641	10	.11E-1	.74E-2	.0	.0	.0	.0	.0	.0	.0	.0
0643-0701	10	.82E-2	.0	.0	.0	.0	.0	.0	.0	.0	.0
0703-0721	10	.53E-2	.0	.68E-2	.0	.0	.0	.0	.0	.0	.0
0723-0739	9	.25E-1	.0	.0	.0	.0	.0	.0	.0	.0	.0
0743-0801	10	.23E-1	.53E-2	.44E-2	.50E-2	.5E-2	.5E-2	.5E-2	.0	.2E-2	.3E-3
0803-0821	10	.20E-1	.48E-2	.14E-2	.15E-2	.0	.0	.1E-2	.0	.0	.0
1022-1040	10	.29E-1	.24E-2	.0	.29E-3	.0	.3E-3	.0	.0	.0	.0
1042-1100	10	.25E-1	.11E-2	.0	.12E-2	.0	.0	.0	.0	.0	.0
1102-1120	10	.29E-1	.82E-2	.11E-2	.26E-2	.0	.3E-3	.3E-3	.9E-3	.0	.0
1242-1300	8	.38E-1	.22E-1	.70E-2	.10E-2	.13E-2	.0	.3E-3	.3E-3	.0	.0
1302-1320	10	.38E-1	.13E-1	.14E-1	.53E-3	.40E-2	.8E-3	.0	.0	.0	.0
1322-1340	10	.48E-1	.16E-1	.33E-2	.0	.49F-3	.0	.2E-3	.1E-2	.0	.0
1342-1400	10	.49E-1	.18E-1	.75E-2	.49F-2	.76F-2	.2E-3	.0	.0	.0	.2E-3

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AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
1342-1400	10	.49E-1	.18E-1	.75E-2	.49E-2	.76E-2	.2E-3	.0	.0	.0	.2E-3
1402-1420	10	.42E-1	.15E-1	.31E-2	.15E-2	.25E-3	.3E-2	.1E-2	.1E-2	.0	.2E-3
1422-1440	10	.51E-1	.24E-1	.52E-2	.30E-2	.12E-2	.2E-2	.1E-2	.0	.0	.0
1442-1500	10	.71E-1	.28E-1	.12E-1	.30E-2	.32E-2	.2E-3	.0	.0	.0	.2E-3
1502-1520	10	.66E-1	.24E-1	.15E-1	.36E-2	.60E-2	.49E-2	.2E-3	.1E-2	.0	.2E-3
1522-1540	10	.65E-1	.33E-1	.15E-1	.30E-2	.62E-2	.47E-2	.2E-3	.1E-2	.0	.2E-3
1542-1600	10	.80E-1	.36E-1	.20E-1	.58E-2	.77E-2	.21E-2	.1E-2	.2E-3	.0	.1E-2
1602-1620	10	.88E-1	.42E-1	.24E-1	.71E-2	.11E-1	.21E-2	.1E-2	.1E-2	.2E-3	.0
1622-1640	10	.85E-1	.46E-1	.28E-1	.16E-1	.49E-2	.73E-2	.2E-2	.1E-2	.1E-2	.1E-2
1642-1700	10	.93E-1	.47E-1	.21E-1	.14E-1	.14E-1	.12E-1	.3E-2	.2E-2	.0	.2E-3
1702-1720	10	.98E-1	.49E-1	.30E-1	.17E-1	.18E-1	.92E-2	.0	.0	.0	.0
1722-1740	10	.99E-1	.54E-1	.31E-1	.16E-1	.16E-1	.94E-2	.73E-2	.4E-2	.1E-2	.0
1802-1820	10	.13E+0	.71E-1	.37E-1	.22E-1	.21E-1	.17E-1	.80E-2	.2E-2	.20E-3	.2E-3
1842-1900	10	.15E+0	.67E-1	.32E-1	.19E-1	.32E-1	.22E-1	.73E-2	.0	.0	.0
1902-1920	10	.15E+0	.67E-1	.26E-1	.25E-1	.29E-1	.22E-1	.17E-1	.26E-2	.18E-3	.18E-3
2005-2021	17	.16E+0	.73E-1	.26E-1	.11E-1	.23E-1	.13E-1	.6E-2	.7E-2	.2E-3	.9E-3
2022-2041	20	.15E+0	.72E-1	.43E-1	.25E-1	.24E-1	.12E-1	.9E-3	.9E-3	.0	.2E-2
2042-2101	20	.15E+0	.57E-1	.28E-1	.73E-2	.31E-1	.13E-1	.3E-2	.2E-3	.7E-3	.0
2102-2121	20	.15E+0	.68E-1	.28E-1	.10E-1	.25E-1	.14E-1	.2E-2	.5E-2	.3E-2	.0
2122-2141	20	.16E+0	.73E-1	.31E-1	.35E-1	.40E-1	.18E-1	.4E-2	.7E-3	.9E-3	.7E-3
2142-2201	20	.16E+0	.71E-1	.36E-1	.88E-2	.34E-1	.23E-1	.1E-1	.2E-2	.9E-3	.2E-2
2202-2221	20	.16E+0	.71E-1	.33E-1	.25E-1	.28E-1	.15E-1	.8E-2	.3E-2	.1E-2	.2E-2
2222-2241	20	.15E+0	.79E-1	.29E-1	.15E-1	.34E-1	.17E-1	.2E-2	.2E-2	.7E-3	.2E-3
2242-2301	20	.17E+0	.85E-1	.36E-1	.14E-1	.38E-1	.21E-1	.6E-2	.9E-2	.1E-2	.1E-2
2302-2321	20	.17E+0	.80E-1	.22E-1	.17E-1	.30E-1	.13E-1	.4E-2	.3E-2	.2E-3	.2E-3
2322-2341	20	.16E+0	.72E-1	.37E-1	.13E-1	.28E-1	.15E-1	.6E-2	.2E-2	.2E-2	.9E-3
2342-2359	18	.16E+0	.70E-1	.33E-1	.19E-1	.28E-1	.79E-2	.3E-2	.2E-2	.3E-2	.2E-3

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AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0001-0020	20	.97E+2	.14E+3	.90E+2	.47E+2	.26E+2	.92E+1	.66E+1	.32E+1	.29E+1	.14E+1	.54E+0	.27E+0	.26E+0	.23E+0	.19E+0
0021-0040	20	.95E+2	.14E+3	.90E+2	.48E+2	.26E+2	.93E+1	.66E+1	.32E+1	.30E+1	.15E+1	.52E+0	.33E+0	.30E+0	.27E+0	.20E+0
0041-0100	20	.81E+2	.13E+3	.84E+2	.45E+2	.24E+2	.89E+1	.63E+1	.30E+1	.29E+1	.14E+1	.51E+0	.25E+0	.26E+0	.23E+0	.18E+0
0102-0120	19	.97E+2	.13E+3	.89E+2	.49E+2	.25E+2	.90E+1	.64E+1	.31E+1	.29E+1	.15E+1	.55E+0	.28E+0	.26E+0	.25E+0	.15E+0
0411-0421	11	.88E+2	.11E+3	.71E+2	.37E+2	.17E+2	.66E+1	.47E+1	.24E+1	.22E+1	.11E+1	.37E+0	.20E+0	.21E+0	.21E+0	.1E+0
0422-0432	11	.73E+2	.11E+3	.70E+2	.37E+2	.17E+2	.70E+1	.50E+1	.26E+1	.24E+1	.11E+1	.36E+0	.20E+0	.21E+0	.16E+0	.1E+0
0522-0540	19	.68E+2	.99E+2	.63E+2	.33E+2	.16E+2	.63E+1	.44E+1	.23E+1	.21E+1	.11E+1	.39E+0	.21E+0	.19E+0	.17E+0	.1E+0
0611-0621	11	.65E+2	.87E+2	.60E+2	.32E+2	.16E+2	.59E+1	.43E+1	.22E+1	.20E+1	.11E+1	.39E+0	.2E+0	.2E+0	.1E+0	.9E-1
0622-0641	20	.59E+2	.80E+2	.56E+2	.31E+2	.15E+2	.56E+1	.42E+1	.21E+1	.20E+1	.11E+1	.37E+0	.2E+0	.2E+0	.1E+0	.1E+0
0642-0701	20	.59E+2	.81E+2	.57E+2	.32E+2	.17E+2	.58E+1	.42E+1	.21E+1	.20E+1	.12E+1	.45E+0	.2E+0	.2E+0	.2E+0	.1E+0
0702-0721	20	.55E+2	.71E+2	.53E+2	.30E+2	.17E+2	.55E+1	.40E+1	.20E+1	.19E+1	.11E+1	.44E+0	.2E+0	.2E+0	.1E+0	.1E+0
0722-0741	20	.65E+2	.84E+2	.57E+2	.31E+2	.16E+2	.58E+1	.41E+1	.21E+1	.20E+1	.11E+1	.44E+0	.2E+0	.1E+0	.2E+0	.8E-1
0742-0800	19	.48E+2	.61E+2	.47E+2	.28E+2	.15E+2	.50E+1	.37E+1	.19E+1	.17E+1	.10E+1	.39E+0	.1E+0	.1E+0	.1E+0	.6E-1
1202-1221	20	.49E+2	.66E+2	.52E+2	.31E+2	.18E+2	.65E+1	.47E+1	.23E+1	.22E+1	.12E+1	.60E+0	.2E+0	.2E+0	.2E+0	.1E+0
1222-1237	16	.57E+2	.74E+2	.57E+2	.34E+2	.20E+2	.70E+1	.49E+1	.26E+1	.24E+1	.13E+1	.64E+0	.23E+0	.2E+0	.1E+0	.1E+0
1244-1300	17	.57E+2	.74E+2	.56E+2	.32E+2	.19E+2	.69E+1	.50E+1	.24E+1	.24E+1	.13E+1	.59E+0	.2E+0	.2E+0	.1E+0	.1E+0
1301-1320	20	.58E+2	.76E+2	.56E+2	.32E+2	.19E+2	.66E+1	.46E+1	.24E+1	.24E+1	.13E+1	.59E+0	.2E+0	.2E+0	.1E+0	.1E+0
1321-1340	20	.54E+2	.72E+2	.55E+2	.33E+2	.19E+2	.66E+1	.47E+1	.23E+1	.22E+1	.13E+1	.56E+0	.2E+0	.2E+0	.1E+0	.1E+0
1341-1400	20	.59E+2	.76E+2	.56E+2	.32E+2	.19E+2	.65E+1	.46E+1	.23E+1	.22E+1	.13E+1	.61E+0	.2E+0	.2E+0	.1E+0	.1E+0
1401-1420	20	.44E+2	.57E+2	.48E+2	.29E+2	.17E+2	.59E+1	.42E+1	.22E+1	.21E+1	.11E+1	.56E+0	.2E+0	.2E+0	.1E+0	.9E-1
1421-1440	20	.51E+2	.64E+2	.49E+2	.30E+2	.17E+2	.60E+1	.43E+1	.23E+1	.21E+1	.12E+1	.54E+0	.2E+0	.1E+0	.1E+0	.1E+0
1441-1500	20	.47E+2	.65E+2	.51E+2	.30E+2	.17E+2	.62E+1	.44E+1	.22E+1	.22E+1	.12E+1	.57E+0	.2E+0	.2E+0	.1E+0	.1E+0
1501-1520	20	.49E+2	.64E+2	.51E+2	.31E+2	.17E+2	.58E+1	.44E+1	.22E+1	.21E+1	.12E+1	.54E+0	.2E+0	.2E+0	.1E+0	.8E-1
1521-1540	20	.61E+2	.77E+2	.57E+2	.33E+2	.19E+2	.65E+1	.47E+1	.23E+1	.22E+1	.12E+1	.61E+0	.2E+0	.1E+0	.1E+0	.6E-1
1541-1600	20	.60E+2	.72E+2	.56E+2	.34E+2	.19E+2	.64E+1	.47E+1	.24E+1	.23E+1	.13E+1	.57E+0	.2E+0	.1E+0	.1E+0	.1E+0
1601-1620	20	.54E+2	.69E+2	.54E+2	.33E+2	.18E+2	.61E+1	.45E+1	.22E+1	.22E+1	.12E+1	.60E+0	.16E+0	.2E+0	.2E+0	.9E-1
1621-1630	10	.59E+2	.71E+2	.54E+2	.32E+2	.17E+2	.61E+1	.42E+1	.22E+1	.22E+1	.12E+1	.57E+0	.15E+0	.14E+0	.1E+0	.5E-1
1631-1641	11	.51E+2	.66E+2	.56E+2	.35E+2	.18E+2	.66E+1	.49E+1	.25E+1	.24E+1	.13E+1	.60E+0	.2E+0	.2E+0	.1E+0	.4E-1
1642-1701	20	.50E+2	.59E+2	.51E+2	.32E+2	.17E+2	.61E+1	.45E+1	.22E+1	.22E+1	.12E+1	.63E+0	.2E+0	.2E+0	.1E+0	.6E-1
1702-1710	9	.53E+2	.58E+2	.49E+2	.31E+2	.17E+2	.59E+1	.42E+1	.21E+1	.21E+1	.12E+1	.63E+0	.2E+0	.1E+0	.1E+0	.6E-1
1711-1721	11	.77E+2	.81E+2	.62E+2	.38E+2	.21E+2	.74E+1	.53E+1	.27E+1	.26E+1	.14E+1	.70E+0	.2E+0	.2E+0	.1E+0	.0
1722-1732	11	.82E+2	.88E+2	.59E+2	.36E+2	.20E+2	.73E+1	.52E+1	.25E+1	.24E+1	.14E+1	.80E+0	.24E+0	.2E+0	.9E-1	.4E-1
1733-1741	9	.60E+2	.68E+2	.53E+2	.33E+2	.18E+2	.67E+1	.46E+1	.23E+1	.21E+1	.11E+1	.68E+0	.2E+0	.1E+0	.1E+0	.5E-1
1742-1751	10	.75E+2	.76E+2	.57E+2	.35E+2	.20E+2	.68E+1	.50E+1	.25E+1	.25E+1	.14E+1	.74E+0	.20E+0	.1E+0	.1E+0	.1E+0
1801-1820	20	.71E+2	.85E+2	.62E+2	.35E+2	.20E+2	.74E+1	.52E+1	.28E+1	.26E+1	.14E+1	.60E+0	.2E+0	.1E+0	.1E+0	.9E-1
1821-1840	20	.71E+2	.96E+2	.66E+2	.36E+2	.18E+2	.77E+1	.54E+1	.26E+1	.25E+1	.13E+1	.52E+0	.2E+0	.2E+0	.1E+0	.1E+0
1841-1900	20	.69E+2	.95E+2	.65E+2	.36E+2	.18E+2	.77E+1	.55E+1	.28E+1	.27E+1	.13E+1	.49E+0	.2E+0	.2E+0	.2E+0	.1E+0
1901-1920	20	.60E+2	.76E+2	.56E+2	.31E+2	.15E+2	.70E+1	.52E+1	.25E+1	.24E+1	.13E+1	.46E+0	.2E+0	.1E+0	.1E+0	.1E+0
1921-1930	10	.49E+2	.67E+2	.51E+2	.30E+2	.15E+2	.66E+1	.47E+1	.25E+1	.24E+1	.12E+1	.49E+0	.1E+0	.2E+0	.1E+0	.1E+0
1931-1941	11	.59E+2	.70E+2	.56E+2	.32E+2	.16E+2	.72E+1	.52E+1	.27E+1	.26E+1	.13E+1	.58E+0	.2E+0	.2E+0	.1E+0	.1E+0
1942-2001	20	.58E+2	.74E+2	.58E+2	.34E+2	.17E+2	.74E+1	.53E+1	.27E+1	.26E+1	.14E+1	.54E+0	.2E+0	.2E+0	.2E+0	.1E+0
2002-2021	20	.65E+2	.78E+2	.61E+2	.35E+2	.18E+2	.77E+1	.54E+1	.28E+1	.27E+1	.14E+1	.58E+0	.19E+0	.2E+0	.1E+0	.8E-1
2022-2040	19	.67E+2	.75E+2	.59E+2	.36E+2	.18E+2	.74E+1	.55E+1	.28E+1	.27E+1	.14E+1	.54E+0	.20E+0	.2E+0	.2E+0	.1E+0
2042-2059	18	.76E+2	.89E+2	.70E+2	.42E+2	.22E+2	.88E+1	.61E+1	.31E+1	.31E+1	.17E+1	.60E+0	.26E+0	.2E+0	.2E+0	.1E+0
2101-2120	20	.95E+2	.10E+3	.80E+2	.49E+2	.27E+2	.10E+2	.73E+1	.38E+1	.34E+1	.18E+1	.82E+0	.3E+0	.2E+0	.2E+0	.2E+0
2121-2140	20	.91E+2	.95E+2	.78E+2	.50E+2	.27E+2	.10E+2	.73E+1	.38E+1	.35E+1	.19E+1	.82E+0	.28E+0	.2E+0	.2E+0	.2E+0

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AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
2121-2140	20	.91E+2	.95E+2	.78E+2	.50E+2	.27E+2	.10E+2	.73E+1	.38E+1	.35E+1	.19E+1	.82E+0	.28E+0	.2E+0	.2E+0	.2E+0
2141-2200	20	.72E+2	.80E+2	.75E+2	.50E+2	.28E+2	.10E+2	.77E+1	.38E+1	.35E+1	.19E+1	.89E+0	.29E+0	.3E+0	.2E+0	.1E+0
2201-2220	20	.75E+2	.79E+2	.76E+2	.53E+2	.29E+2	.11E+2	.77E+1	.41E+1	.35E+1	.19E+1	.85E+0	.32E+0	.2E+0	.2E+0	.1E+0
2221-2240	20	.86E+2	.93E+2	.79E+2	.53E+2	.29E+2	.11E+2	.78E+1	.41E+1	.36E+1	.19E+1	.82E+0	.36E+0	.2E+0	.2E+0	.8E-1
2242-2301	20	.12E+3	.11E+3	.84E+2	.54E+2	.31E+2	.11E+2	.80E+1	.40E+1	.35E+1	.19E+1	.86E+0	.34E+0	.3E+0	.2E+0	.7E-1
2302-2310	9	.11E+3	.10E+3	.77E+2	.49E+2	.28E+2	.11E+2	.73E+1	.35E+1	.32E+1	.18E+1	.85E+0	.2E+0	.2E+0	.2E+0	.6E-1
2311-2320	10	.80E+2	.98E+2	.85E+2	.55E+2	.31E+2	.11E+2	.79E+1	.41E+1	.35E+1	.20E+1	.83E+0	.2E+0	.2E+0	.1E+0	.1E+0
2322-2340	19	.97E+2	.10E+3	.75E+2	.52E+2	.28E+2	.99E+1	.69E+1	.37E+1	.32E+1	.18E+1	.81E+0	.2E+0	.7E-1	.8E-1	.1E-1

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0001-0020	20	.16E+0	.69E-1	.20E-1	.11E-1	.31E-1	.53E-2	.5E-2	.3E-2	.1E-2	.4E-3
0021-0040	20	.16E+0	.76E-1	.33E-1	.11E-1	.31E-1	.15E-1	.9E-3	.3E-2	.5E-2	.6E-3
0041-0100	20	.14E+0	.62E-1	.23E-1	.15E-1	.26E-1	.14E-1	.4E-2	.2E-3	.0	.0
0102-0120	19	.13E+0	.63E-1	.30E-1	.17E-2	.99E-2	.3E-2	.4E-2	.2E-2	.5E-3	.2E-3
0411-0421	11	.10E+0	.37E-1	.24E-1	.62E-2	.35E-2	.0	.2E-2	.4E-3	.0	.0
0422-0432	11	.99E-1	.36E-1	.17E-1	.39E-3	.17E-1	.3E-2	.0	.4E-3	.0	.4E-3
0522-0540	19	.94E-1	.38E-1	.84E-2	.92E-2	.58E-2	.2E-2	.2E-3	.9E-3	.2E-3	.0
0611-0621	11	.87E-1	.35E-1	.11E-1	.42E-3	.7E-2	.4E-2	.0	.0	.2E-2	.8E-3
0622-0641	20	.87E-1	.31E-1	.19E-1	.25E-2	.1E-2	.0	.5E-3	.9E-3	.0	.9E-3
0642-0701	20	.10E+0	.46E-1	.22E-1	.34E-2	.21E-2	.0	.3E-2	.0	.0	.5E-3
0702-0721	20	.88E-1	.33E-1	.18E-1	.18E-2	.23E-2	.2E-2	.2E-2	.1E-2	.7E-3	.2E-3
0722-0741	20	.77E-1	.36E-1	.12E-1	.11E-2	.66E-2	.3E-2	.5E-3	.2E-3	.0	.0
0742-0800	19	.75E-1	.29E-1	.83E-2	.43E-2	.46E-2	.1E-2	.5E-3	.1E-2	.5E-3	.1E-2
1202-1221	20	.84E-1	.41E-1	.16E-1	.67E-2	.51E-2	.2E-2	.0	.1E-2	.0	.0
1222-1237	16	.93E-1	.24E-1	.15E-1	.67E-2	.77E-2	.0	.2E-2	.7E-3	.3E-3	.0
1244-1300	17	.10E+0	.36E-1	.16E-1	.41E-2	.6E-2	.1E-2	.3E-3	.1E-2	.0	.0
1301-1320	20	.88E-1	.42E-1	.15E-1	.12E-2	.44E-2	.3E-2	.2E-3	.2E-2	.2E-3	.0
1321-1340	20	.86E-1	.38E-1	.12E-1	.20E-2	.0	.7E-3	.3E-2	.1E-2	.2E-3	.2E-3
1341-1400	20	.98E-1	.34E-1	.21E-1	.30E-2	.25E-2	.1E-2	.5E-3	.2E-3	.0	.0
1401-1420	20	.80E-1	.32E-1	.77E-2	.44E-2	.35E-2	.1E-2	.1E-2	.2E-3	.0	.0
1421-1440	20	.91E-1	.35E-1	.12E-1	.15E-2	.0	.1E-2	.2E-3	.1E-2	.2E-3	.1E-2
1441-1500	20	.93E-1	.37E-1	.19E-1	.0	.99E-3	.1E-2	.0	.0	.2E-3	.0
1501-1520	20	.86E-1	.30E-1	.13E-1	.57E-2	.0	.2E-3	.0	.1E-2	.2E-3	.1E-2
1521-1540	20	.69E-1	.29E-1	.80E-2	.54E-2	.20E-2	.0	.0	.2E-3	.0	.2E-3
1541-1600	20	.74E-1	.28E-1	.99E-2	.52E-2	.22E-2	.1E-2	.2E-3	.0	.0	.0
1601-1620	20	.91E-1	.26E-1	.35E-2	.12E-2	.57E-2	.1E-2	.0	.2E-3	.2E-3	.0
1621-1630	10	.79E-1	.26E-1	.10E-1	.0	.0	.2E-2	.5E-3	.0	.0	.0
1631-1641	11	.73E-1	.13E-1	.0	.0	.5E-3	.2E-2	.0	.1E-2	.0	.0
1642-1701	20	.84E-1	.17E-1	.12E-1	.29E-2	.23E-2	.0	.6E-3	.0	.0	.0
1702-1710	9	.65E-1	.15E-1	.43E-2	.19E-2	.0	.0	.0	.6E-3	.0	.3E-2
1711-1721	11	.68E-1	.82E-2	.68E-2	.65E-3	.5E-2	.2E-2	.3E-2	.0	.0	.0
1722-1732	11	.66E-1	.0	.62E-2	.52E-2	.5E-2	.6E-3	.6E-3	.0	.0	.0
1733-1741	9	.79E-1	.29E-2	.14E-1	.0	.6E-3	.6E-3	.0	.0	.0	.0
1742-1751	10	.72E-1	.15E-1	.22E-1	.29E-2	.52E-2	.6E-3	.2E-2	.0	.0	.0
1801-1820	20	.97E-1	.33E-1	.99E-2	.24E-2	.2E-2	.3E-2	.0	.0	.0	.0
1821-1840	20	.92E-1	.33E-1	.20E-2	.24E-2	.5E-2	.2E-2	.0	.0	.0	.0

MAY 16, (DAY136) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
1821-1840	20	.92E-1	.33E-1	.20E-2	.24E-2	.5E-2	.2E-2	.0	.0	.0	.0
1841-1900	20	.88E-1	.40E-1	.13E-2	.27E-2	.1E-2	.3E-2	.0	.0	.0	.0
1901-1920	20	.75E-1	.36E-1	.33E-2	.13E-2	.2E-2	.1E-2	.0	.0	.0	.0
1921-1930	10	.75E-1	.34E-1	.0	.0	.53E-3	.5E-3	.0	.0	.0	.0
1931-1941	11	.86E-1	.36E-1	.50E-3	.0	.5E-3	.0	.5E-3	.0	.0	.0
1942-2001	20	.97E-1	.47E-1	.17E-1	.26E-2	.26E-2	.1E-2	.0	.3E-3	.0	.0
2002-2021	20	.95E-1	.39E-1	.11E-1	.0	.12E-2	.3E-2	.1E-2	.0	.0	.0
2022-2040	19	.98E-1	.30E-1	.56E-2	.31E-3	.34E-2	.2E-2	.2E-2	.0	.3E-3	.0
2042-2059	18	.12E+0	.24E-1	.81E-2	.21E-2	.36E-2	.2E-2	.7E-3	.7E-3	.0	.0
2101-2120	20	.12E+0	.37E-1	.75E-2	.49E-2	.5E-2	.3E-2	.4E-3	.8E-3	.4E-3	.0
2121-2140	20	.11E+0	.30E-1	.65E-2	.15E-2	.2E-2	.4E-3	.4E-3	.0	.0	.0
2141-2200	20	.92E-1	.31E-1	.47E-2	.75E-3	.6E-2	.8E-3	.0	.0	.0	.0
2201-2220	20	.10E+0	.33E-1	.15E-1	.75E-3	.2E-2	.8E-3	.3E-2	.0	.4E-3	.4E-3
2221-2240	20	.89E-1	.34E-1	.0	.0	.38E-3	.3E-2	.1E-2	.0	.8E-3	.0
2242-2301	20	.96E-1	.25E-1	.15E-2	.12E-2	.2E-2	.4E-3	.8E-3	.4E-3	.0	.0
2302-2310	9	.11E+0	.26E-1	.34E-2	.0	.0	.0	.0	.0	.0	.0
2311-2320	10	.12E+0	.67E-2	.61E-2	.37E-2	.4E-2	.0	.0	.0	.0	.0
2322-2340	19	.38E-1	.77E-2	.54E-3	.56E-3	.0	.0	.0	.0	.0	.0

MAY 17, (DAY137) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0726-0740	8	.18E+2	.16E+2	.96E+1	.54E+1	.28E+1	.20E+1	.14E+1	.63E+0	.51E+0	.2E+0	.8E-1	.5E-1	.4E-1	.1E-1	.0
0802-0820	10	.12E+2	.13E+2	.10E+2	.53E+1	.31E+1	.20E+1	.14E+1	.67E+0	.48E+0	.22E+0	.7E-1	.0	.5E-2	.1E-2	.0
0822-0840	10	.15E+2	.14E+2	.11E+2	.49E+1	.35E+1	.22E+1	.13E+1	.64E+0	.53E+0	.26E+0	.1E+0	.6E-1	.4E-1	.0	.0
0842-0900	10	.17E+2	.15E+2	.11E+2	.53E+1	.35E+1	.23E+1	.15E+1	.68E+0	.52E+0	.24E+0	.1E+0	.1E-2	.3E-1	.1E-1	.0
0902-0920	10	.14E+2	.13E+2	.10E+2	.49E+1	.33E+1	.20E+1	.14E+1	.67E+0	.50E+0	.19E+0	.9E-1	.0	.5E-1	.4E-1	.0
0922-0940	10	.16E+2	.16E+2	.11E+2	.50E+1	.32E+1	.21E+1	.13E+1	.59E+0	.42E+0	.24E+0	.9E-1	.5E-1	.4E-2	.7E-2	.0
1006-1020	8	.19E+2	.17E+2	.10E+2	.54E+1	.30E+1	.20E+1	.12E+1	.59E+0	.39E+0	.2E+0	.1E+0	.3E-1	.3E-2	.2E-1	.0
1022-1040	10	.22E+2	.18E+2	.90E+1	.48E+1	.30E+1	.20E+1	.13E+1	.65E+0	.46E+0	.2E+0	.2E+0	.8E-2	.0	.0	.0
1042-1100	10	.19E+2	.18E+2	.12E+2	.57E+1	.36E+1	.24E+1	.15E+1	.78E+0	.61E+0	.3E+0	.5E-1	.3E-1	.4E-1	.2E-1	.0
1102-1120	10	.18E+2	.15E+2	.96E+1	.50E+1	.28E+1	.20E+1	.13E+1	.67E+0	.51E+0	.2E+0	.2E-1	.3E-1	.0	.8E-2	.0
1222-1240	10	.16E+2	.13E+2	.71E+1	.39E+1	.27E+1	.17E+1	.12E+1	.58E+0	.49E+0	.2E+0	.1E+0	.2E-1	.2E-1	.3E-1	.0
1443-1501	10	.31E+2	.24E+2	.18E+2	.14E+2	.55E+1	.24E+1	.17E+1	.85E+0	.68E+0	.39E+0	.2E+0	.4E-1	.1E-1	.2E-1	.0
1503-1521	10	.40E+2	.36E+2	.30E+2	.22E+2	.89E+1	.33E+1	.26E+1	.13E+1	.10E+1	.61E+0	.29E+0	.2E-1	.4E-1	.3E-1	.0
1523-1541	10	.49E+2	.49E+2	.39E+2	.28E+2	.11E+2	.43E+1	.32E+1	.16E+1	.13E+1	.77E+0	.41E+0	.1E+0	.3E-1	.0	.0
1543-1559	9	.59E+2	.55E+2	.40E+2	.30E+2	.12E+2	.45E+1	.33E+1	.17E+1	.14E+1	.85E+0	.42E+0	.1E+0	.4E-1	.8E-2	.0
1827-1841	8	.36E+2	.52E+2	.51E+2	.31E+2	.12E+2	.53E+1	.37E+1	.21E+1	.19E+1	.11E+1	.44E+0	.2E+0	.2E+0	.2E+0	.2E+0
1843-1901	10	.51E+2	.70E+2	.65E+2	.39E+2	.18E+2	.82E+1	.59E+1	.32E+1	.32E+1	.19E+1	.10E+1	.7E+0	.7E+0	.6E+0	.5E+0
1903-1921	10	.41E+2	.57E+2	.56E+2	.33E+2	.15E+2	.64E+1	.49E+1	.27E+1	.25E+1	.14E+1	.77E+0	.5E+0	.5E+0	.4E+0	.3E+0
1923-1941	10	.55E+2	.77E+2	.68E+2	.41E+2	.21E+2	.92E+1	.72E+1	.38E+1	.41E+1	.24E+1	.15E+1	.1E+1	.1E+1	.1E+1	.8E+0
1943-2001	10	.50E+2	.75E+2	.70E+2	.42E+2	.20E+2	.89E+1	.68E+1	.37E+1	.36E+1	.22E+1	.12E+1	.8E+0	.8E+0	.7E+0	.6E+0
2003-2021	10	.47E+2	.64E+2	.58E+2	.34E+2	.14E+2	.59E+1	.43E+1	.23E+1	.22E+1	.11E+1	.51E+0	.2E+0	.3E+0	.2E+0	.2E+0
2023-2041	10	.47E+2	.70E+2	.66E+2	.38E+2	.16E+2	.71E+1	.52E+1	.28E+1	.25E+1	.14E+1	.69E+0	.3E+0	.4E+0	.3E+0	.3E+0
2043-2101	10	.54E+2	.78E+2	.75E+2	.45E+2	.21E+2	.65E+1	.63E+1	.32E+1	.31E+1	.17E+1	.77E+0	.4E+0	.4E+0	.4E+0	.3E+0
2103-2121	10	.78E+2	.11E+3	.93E+2	.56E+2	.28E+2	.12E+2	.87E+1	.44E+1	.45E+1	.27E+1	.14E+1	.9E+0	.9E+0	.8E+0	.7E+0
2123-2141	10	.72E+2	.98E+2	.79E+2	.46E+2	.21E+2	.84E+1	.60E+1	.29E+1	.29E+1	.15E+1	.66E+0	.4E+0	.3E+0	.3E+0	.2E+0
2143-2201	10	.61E+2	.84E+2	.77E+2	.47E+2	.24E+2	.86E+1	.65E+1	.32E+1	.30E+1	.16E+1	.69E+0	.37E+0	.33E+0	.3E+0	.2E+0
2203-2221	10	.90E+2	.11E+3	.85E+2	.49E+2	.25E+2	.87E+1	.63E+1	.30E+1	.28E+1	.13E+1	.53E+0	.23E+0	.22E+0	.1E+0	.1E+0
2223-2241	10	.10E+3	.13E+3	.92E+2	.52E+2	.27E+2	.10E+2	.72E+1	.34E+1	.34E+1	.17E+1	.75E+0	.38E+0	.42E+0	.3E+0	.3E+0
2303-2321	10	.11E+3	.12E+3	.92E+2	.53E+2	.28E+2	.98E+1	.70E+1	.34E+1	.32E+1	.16E+1	.61E+0	.3E+0	.3E+0	.2E+0	.2E+0
2323-2341	10	.97E+2	.11E+3	.89E+2	.53E+2	.28E+2	.98E+1	.71E+1	.32E+1	.32E+1	.16E+1	.65E+0	.35E+0	.37E+0	.2E+0	.2E+0
2347-2359	7	.12E+3	.13E+3	.10E+3	.61E+2	.34E+2	.12E+2	.82E+1	.39E+1	.37E+1	.19E+1	.89E+0	.44E+0	.44E+0	.3E+0	.3E+0

		4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0727-0739	7	.0	.33E-2	.87E-3	.0	.0	.0	.0	.0	.2E-2	.9E-3
0803-0821	10	.21E-2	.0	.81E-2	.21E-2	.4E-3	.0	.0	.0	.0	.0
0823-0841	10	.98E-2	.35E-2	.24E-2	.21E-2	.0	.0	.4E-3	.0	.0	.0
0843-0859	9	.0	.47E-2	.32E-2	.47E-3	.9E-3	.0	.5E-3	.0	.0	.0
0903-0919	9	.0	.23E-2	.97E-2	.0	.5E-3	.0	.0	.0	.0	.0
0923-0941	10	.14E-1	.36E-2	.47E-3	.0	.5E-3	.0	.0	.0	.0	.0
1005-1021	9	.0	.14E-2	.75E-3	.79E-3	.0	.0	.0	.0	.0	.0
1023-1041	10	.64E-2	.65E-3	.0	.0	.7E-3	.0	.0	.0	.0	.0
1043-1101	10	.93E-2	.91E-2	.68E-3	.0	.1E-2	.1E-2	.7E-3	.0	.0	.0
1103-1121	10	.57E-2	.0	.68E-3	.0	.7E-3	.3E-2	.0	.0	.7E-3	.0
1223-1239	9	.20E-1	.73E-2	.51E-2	.0	.3E-2	.9E-3	.0	.9E-3	.0	.0
1442-1500	10	.77E-2	.29E-2	.0	.0	.6E-3	.0	.0	.0	.0	.0
1502-1520	10	.58E-2	.52E-2	.0	.0	.0	.1E-2	.0	.6E-3	.0	.0

MAY 17, (DAY137) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
1502-1520	10	.58E-2	.52E-2	.0	.0	.0	.1E-2	.0	.6E-3	.0	.0
1522-1540	10	.64E-2	.12E-2	.0	.0	.0	.0	.0	.0	.0	.0
1542-1600	10	.58E-2	.58E-3	.0	.64E-3	.0	.6E-3	.0	.0	.0	.0
1826-1840	8	.11E+0	.40E-1	.21E-1	.13E-1	.8E-2	.2E-2	.4E-3	.0	.4E-3	.4E-3
1842-1900	10	.47E+0	.29E+0	.18E+0	.11E+0	.6E-1	.4E-1	.2E-1	.1E-1	.8E-2	.5E-2
1902-1920	10	.30E+0	.18E+0	.11E+0	.54E-1	.4E-1	.2E-1	.2E-1	.8E-2	.2E-2	.0
1922-1940	10	.53E+0	.27E+0	.15E+0	.55E-1	.3E-1	.1E-1	.7E-2	.0	.0	.0
1942-2000	10	.66E+0	.33E+0	.19E+0	.82E-1	.5E-1	.3E-1	.1E-1	.0	.3E-2	.1E-2
2002-2020	10	.87E-1	.39E-1	.30E-1	.18E-1	.1E-1	.6E-2	.1E-2	.3E-3	.1E-2	.3E-3
2022-2040	10	.27E+0	.15E+0	.81E-1	.31E-1	.2E-1	.8E-2	.1E-2	.0	.0	.3E-3
2042-2100	10	.25E+0	.15E+0	.81E-1	.53E-1	.4E-1	.2E-1	.1E-1	.0	.0	.3E-3
2102-2120	10	.45E+0	.24E+0	.16E+0	.82E-1	.5E-1	.3E-1	.2E-1	.0	.3E-3	.3E-2
2122-2140	10	.29E+0	.16E+0	.11E+0	.48E-1	.3E-1	.2E-1	.1E-1	.2E-2	.1E-2	.0
2142-2200	10	.16E+0	.88E-1	.58E-1	.25E-1	.3E-1	.1E-1	.1E-1	.6E-2	.0	.0
2202-2220	10	.19E+0	.87E-1	.52E-1	.18E-1	.11E-1	.6E-2	.0	.0	.0	.0
2222-2240	10	.14E+0	.62E-1	.29E-1	.92E-2	.82E-2	.9E-2	.2E-2	.0	.0	.0
2242-2252	6	.47E-1	.23E-1	.83E-2	.44E-2	.4E-2	.5E-2	.2E-2	.0	.0	.0
2302-2320	10	.12E+0	.46E-1	.35E-1	.17E-1	.19E-1	.6E-2	.9E-2	.4E-2	.7E-3	.0
2322-2340	10	.19E+0	.11E+0	.62E-1	.32E-1	.38E-1	.2E-1	.1E-1	.2E-2	.3E-2	.3E-3
2346-2358	7	.14E+0	.82E-1	.40E-1	.31E-1	.19E-1	.2E-1	.1E-1	.0	.7E-2	.9E-3

MAY 20, (DAY140) 1978

AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
2025-2101	17	.24E+2	.36E+2	.39E+2	.31E+2	.29E+2	.95E+1	.46E+1	.25E+1	.22E+1	.14E+1	.11E+1	.58E+0	.28E+0	.1E+0	.8E-1
2142-2200	10	.25E+2	.36E+2	.37E+2	.29E+2	.27E+2	.92E+1	.42E+1	.24E+1	.20E+1	.13E+1	.10E+1	.60E+0	.31E+0	.1E+0	.8E-1
2202-2216	8	.26E+2	.35E+2	.38E+2	.30E+2	.29E+2	.95E+1	.46E+1	.26E+1	.22E+1	.14E+1	.11E+1	.58E+0	.33E+0	.1E+0	.1E+0
2222-2240	10	.25E+2	.32E+2	.35E+2	.27E+2	.25E+2	.80E+1	.39E+1	.21E+1	.18E+1	.12E+1	.91E+0	.47E+0	.21E+0	.1E+0	.2E-1
2242-2300	10	.24E+2	.33E+2	.36E+2	.27E+2	.26E+2	.79E+1	.38E+1	.21E+1	.18E+1	.11E+1	.79E+0	.43E+0	.25E+0	.11E+0	.2E-1
2302-2314	7	.26E+2	.33E+2	.37E+2	.31E+2	.30E+2	.97E+1	.48E+1	.25E+1	.23E+1	.14E+1	.11E+1	.64E+0	.33E+0	.17E+0	.1E+0
2322-2340	10	.28E+2	.33E+2	.36E+2	.27E+2	.26E+2	.81E+1	.38E+1	.21E+1	.19E+1	.12E+1	.89E+0	.46E+0	.21E+0	.9E-1	.4E-1
2342-2358	9	.26E+2	.33E+2	.36E+2	.27E+2	.25E+2	.84E+1	.38E+1	.21E+1	.18E+1	.11E+1	.84E+0	.48E+0	.22E+0	.1E+0	.5E-1

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
2026-2040	8	.48E-1	.19E-1	.11E-1	.11E-1	.2E-2	.5E-3	.5E-3	.0	.5E-3	.0
2045-2100	8	.61E-1	.16E-1	.51E-3	.53E-3	.5E-3	.1E-2	.5E-3	.5E-3	.0	.0
2143-2201	10	.62E-1	.14E-1	.15E-2	.80E-3	.40E-3	.2E-2	.4E-3	.0	.0	.0
2203-2215	7	.75E-1	.17E-1	.38E-2	.0	.57E-3	.6E-3	.0	.0	.0	.0
2223-2241	10	.37E-1	.0	.36E-3	.23E-2	.8E-3	.8E-3	.0	.4E-3	.0	.0
2243-2301	10	.32E-1	.12E-1	.14E-2	.11E-2	.4E-2	.8E-3	.4E-3	.0	.0	.0
2303-2313	6	.48E-1	.17E-1	.90E-2	.31E-2	.3E-2	.6E-3	.0	.0	.0	.0
2323-2341	10	.38E-1	.14E-1	.61E-2	.45E-2	.2E-2	.0	.0	.0	.0	.0
2343-2359	9	.51E-1	.80E-2	.36E-2	.42E-2	.0	.4E-3	.0	.0	.0	.0

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AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0002-0020	10	.26E+2	.34E+2	.37E+2	.28E+2	.27E+2	.82E+1	.41E+1	.23E+1	.20E+1	.12E+1	.95E+0	.54E+0	.25E+0	.14E+0	.7E-1
0042-0100	10	.27E+2	.34E+2	.38E+2	.29E+2	.28E+2	.90E+1	.45E+1	.23E+1	.20E+1	.13E+1	.96E+0	.52E+0	.30E+0	.2E+0	.8E-1
0102-0118	9	.25E+2	.32E+2	.35E+2	.27E+2	.25E+2	.79E+1	.39E+1	.22E+1	.17E+1	.11E+1	.92E+0	.48E+0	.25E+0	.1E+0	.8E-1
0142-0200	10	.22E+2	.30E+2	.34E+2	.26E+2	.24E+2	.69E+1	.36E+1	.20E+1	.17E+1	.12E+1	.76E+0	.40E+0	.22E+0	.1E+0	.3E-1
0202-0214	7	.20E+2	.29E+2	.32E+2	.24E+2	.22E+2	.62E+1	.33E+1	.19E+1	.15E+1	.10E+1	.71E+0	.39E+0	.19E+0	.9E-1	.2E-1
0242-0300	10	.21E+2	.31E+2	.34E+2	.26E+2	.25E+2	.69E+1	.38E+1	.21E+1	.19E+1	.12E+1	.88E+0	.50E+0	.24E+0	.9E-1	.1E+0
0302-0318	9	.24E+2	.31E+2	.33E+2	.25E+2	.23E+2	.65E+1	.35E+1	.20E+1	.17E+1	.11E+1	.81E+0	.40E+0	.2E+0	.1E+0	.6E-1
0402-0420	10	.24E+2	.30E+2	.31E+2	.24E+2	.22E+2	.64E+1	.35E+1	.20E+1	.17E+1	.11E+1	.87E+0	.40E+0	.22E+0	.1E+0	.6E-1
0442-0500	10	.22E+2	.27E+2	.28E+2	.21E+2	.19E+2	.46E+1	.27E+1	.14E+1	.13E+1	.89E+0	.62E+0	.32E+0	.1E+0	.5E-1	.0
0822-0840	10	.21E+2	.26E+2	.27E+2	.19E+2	.16E+2	.39E+1	.25E+1	.13E+1	.12E+1	.69E+0	.52E+0	.22E+0	.9E-1	.0	.0
0902-0920	10	.23E+2	.30E+2	.30E+2	.22E+2	.18E+2	.47E+1	.29E+1	.15E+1	.14E+1	.90E+0	.67E+0	.27E+0	.1E+0	.6E-1	.0
0922-0940	10	.24E+2	.31E+2	.30E+2	.21E+2	.17E+2	.46E+1	.28E+1	.14E+1	.14E+1	.83E+0	.59E+0	.29E+0	.2E+0	.6E-2	.0
0942-1000	10	.21E+2	.28E+2	.28E+2	.20E+2	.16E+2	.42E+1	.28E+1	.14E+1	.12E+1	.76E+0	.59E+0	.29E+0	.1E+0	.2E-1	.0
1002-1020	10	.25E+2	.31E+2	.30E+2	.22E+2	.18E+2	.49E+1	.29E+1	.15E+1	.15E+1	.91E+0	.65E+0	.33E+0	.19E+0	.6E-1	.0
1027-1041	8	.23E+2	.30E+2	.29E+2	.22E+2	.17E+2	.47E+1	.29E+1	.15E+1	.13E+1	.81E+0	.63E+0	.3E+0	.1E+0	.2E-1	.0
1043-1101	10	.25E+2	.30E+2	.29E+2	.22E+2	.18E+2	.49E+1	.27E+1	.14E+1	.13E+1	.86E+0	.60E+0	.28E+0	.18E+0	.7E-1	.0
1103-1121	10	.25E+2	.33E+2	.31E+2	.23E+2	.18E+2	.47E+1	.29E+1	.16E+1	.14E+1	.87E+0	.68E+0	.27E+0	.17E+0	.7E-1	.0
1131-1141	6	.22E+2	.28E+2	.27E+2	.19E+2	.14E+2	.36E+1	.22E+1	.13E+1	.10E+1	.62E+0	.40E+0	.24E+0	.8E-1	.2E-2	.0
1143-1157	8	.21E+2	.27E+2	.25E+2	.18E+2	.14E+2	.36E+1	.21E+1	.11E+1	.97E+0	.59E+0	.39E+0	.18E+0	.7E-1	.5E-2	.0
1244-1300	9	.22E+2	.27E+2	.23E+2	.17E+2	.12E+2	.34E+1	.21E+1	.11E+1	.98E+0	.65E+0	.45E+0	.2E+0	.8E-1	.3E-1	.0
1342-1400	10	.20E+2	.27E+2	.24E+2	.17E+2	.12E+2	.32E+1	.21E+1	.97E+0	.97E+0	.58E+0	.41E+0	.2E+0	.3E-1	.1E-1	.0
1402-1420	10	.22E+2	.27E+2	.25E+2	.18E+2	.13E+2	.34E+1	.22E+1	.11E+1	.10E+1	.58E+0	.46E+0	.2E+0	.1E+0	.4E-1	.0
1530-1540	6	.16E+2	.22E+2	.21E+2	.14E+2	.10E+2	.26E+1	.15E+1	.91E+0	.81E+0	.55E+0	.33E+0	.1E+0	.5E-1	.2E-1	.0
1542-1600	10	.19E+2	.21E+2	.21E+2	.14E+2	.11E+2	.26E+1	.18E+1	.90E+0	.85E+0	.47E+0	.36E+0	.16E+0	.7E-1	.1E-2	.0
1602-1618	9	.26E+2	.26E+2	.22E+2	.14E+2	.11E+2	.27E+1	.18E+1	.89E+0	.86E+0	.46E+0	.32E+0	.13E+0	.3E-1	.1E-1	.0
1704-1720	9	.16E+2	.22E+2	.23E+2	.15E+2	.12E+2	.30E+1	.19E+1	.95E+0	.97E+0	.56E+0	.42E+0	.2E+0	.3E-1	.1E-1	.0
1722-1735	6	.21E+2	.24E+2	.24E+2	.16E+2	.13E+2	.30E+1	.19E+1	.96E+0	.10E+1	.58E+0	.36E+0	.2E+0	.4E-1	.4E-2	.0
1742-1754	7	.16E+2	.22E+2	.24E+2	.16E+2	.13E+2	.31E+1	.19E+1	.10E+1	.90E+0	.58E+0	.39E+0	.2E+0	.3E-1	.2E-1	.0
1803-1821	10	.21E+2	.22E+2	.22E+2	.15E+2	.12E+2	.28E+1	.18E+1	.95E+0	.86E+0	.49E+0	.35E+0	.1E+0	.2E-1	.1E-1	.0
1823-1833	6	.18E+2	.21E+2	.23E+2	.16E+2	.13E+2	.28E+1	.21E+1	.10E+1	.86E+0	.56E+0	.35E+0	.1E+0	.7E-1	.2E-2	.0
1931-1941	6	.21E+2	.22E+2	.22E+2	.16E+2	.14E+2	.31E+1	.19E+1	.89E+0	.89E+0	.55E+0	.39E+0	.15E+0	.7E-1	.2E-2	.0
1943-2001	10	.20E+2	.23E+2	.24E+2	.17E+2	.15E+2	.33E+1	.20E+1	.11E+1	.97E+0	.58E+0	.43E+0	.20E+0	.7E-1	.4E-1	.0
2003-2019	9	.19E+2	.24E+2	.25E+2	.18E+2	.15E+2	.35E+1	.21E+1	.11E+1	.96E+0	.58E+0	.44E+0	.25E+0	.7E-1	.5E-1	.0
2023-2041	10	.18E+2	.24E+2	.26E+2	.18E+2	.16E+2	.34E+1	.25E+1	.12E+1	.11E+1	.61E+0	.51E+0	.22E+0	.8E-1	.9E-2	.0
2043-2101	10	.17E+2	.25E+2	.27E+2	.19E+2	.16E+2	.37E+1	.24E+1	.12E+1	.11E+1	.72E+0	.53E+0	.24E+0	.1E+0	.1E-1	.0
2103-2119	9	.23E+2	.28E+2	.32E+2	.22E+2	.19E+2	.42E+1	.30E+1	.15E+1	.13E+1	.87E+0	.67E+0	.30E+0	.1E+0	.2E-1	.0
2203-2221	10	.24E+2	.30E+2	.35E+2	.24E+2	.20E+2	.47E+1	.31E+1	.15E+1	.16E+1	.97E+0	.67E+0	.30E+0	.1E+0	.2E-1	.0
2223-2241	10	.24E+2	.29E+2	.31E+2	.22E+2	.19E+2	.44E+1	.28E+1	.15E+1	.14E+1	.88E+0	.65E+0	.27E+0	.1E+0	.5E-1	.0
2243-2301	10	.24E+2	.28E+2	.30E+2	.21E+2	.18E+2	.40E+1	.27E+1	.14E+1	.13E+1	.77E+0	.57E+0	.30E+0	.8E-1	.2E-1	.0
2303-2321	10	.24E+2	.29E+2	.32E+2	.22E+2	.18E+2	.43E+1	.28E+1	.15E+1	.14E+1	.80E+0	.61E+0	.27E+0	.8E-1	.4E-1	.0
2323-2341	10	.22E+2	.29E+2	.31E+2	.21E+2	.17E+2	.42E+1	.28E+1	.14E+1	.12E+1	.80E+0	.63E+0	.24E+0	.9E-1	.1E-1	.0
2343-2359	9	.28E+2	.32E+2	.33E+2	.24E+2	.21E+2	.50E+1	.31E+1	.17E+1	.15E+1	.98E+0	.80E+0	.35E+0	.19E+0	.4E-1	.0

AVERAGING INT.(PST)	NO. OF SAMPLES	4.80	5.35	5.85	6.40	7.00
1804-1820	9	.0	.0	.0	.0	.0
1822-1834	7	.0	.0	.0	.0	.0

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AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	4.80	5.35	5.85	6.40	7.00
1822-1834	7	.0	.0	.0	.0	.0

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0003-0019	9	.39E-1	.30E-2	.24E-2	.54E-2	.3E-2	.4E-3	.0	.0	.4E-3	.0
0043-0101	10	.48E-1	.20E-1	.14E-2	.72E-2	.8E-3	.4E-3	.0	.4E-3	.4E-3	.0
0103-0119	9	.42E-1	.12E-1	.40E-3	.42E-3	.0	.2E-2	.4E-3	.3E-2	.4E-3	.0
0143-0201	10	.41E-1	.19E-1	.50E-2	.45E-2	.2E-2	.4E-3	.4E-3	.0	.0	.0
0203-0215	7	.37E-1	.0	.51E-3	.54E-3	.0	.0	.0	.0	.0	.0
0243-0301	10	.37E-1	.13E-1	.11E-2	.26E-2	.4E-3	.4E-3	.4E-3	.0	.0	.0
0303-0317	8	.31E-1	.11E-1	.45E-3	.47E-3	.5E-3	.5E-3	.0	.0	.0	.0
0351-0401	6	.14E-1	.0	.60E-3	.25E-2	.0	.6E-3	.0	.0	.0	.0
0403-0419	9	.39E-1	.20E-1	.20E-2	.54E-2	.3E-2	.4E-3	.0	.0	.0	.0
0443-0459	9	.36E-1	.69E-2	.80E-3	.0	.0	.4E-3	.0	.0	.0	.0
0823-0841	10	.11E-1	.58E-2	.19E-2	.0	.0	.4E-3	.0	.0	.0	.0
0903-0921	10	.23E-1	.18E-2	.47E-3	.20E-2	.0	.0	.0	.5E-3	.0	.0
0923-0941	10	.28E-1	.45E-3	.94E-3	.0	.0	.0	.0	.0	.0	.0
0943-1001	10	.25E-2	.45E-3	.38E-2	.0	.0	.0	.0	.0	.0	.0
1003-1021	10	.30E-1	.45E-2	.94E-3	.0	.0	.0	.0	.5E-3	.0	.0
1026-1040	8	.0	.28E-2	.29E-2	.12E-2	.0	.0	.0	.0	.0	.0
1042-1100	10	.69E-2	.13E-1	.94E-3	.49E-3	.0	.0	.0	.0	.0	.0
1102-1120	10	.11E-1	.45E-3	.14E-2	.20E-2	.0	.5E-3	.0	.0	.0	.0
1130-1140	6	.25E-2	.75E-3	.0	.0	.0	.0	.0	.0	.0	.8E-3
1142-1156	8	.12E-1	.0	.59E-3	.0	.6E-3	.0	.0	.0	.0	.0
1245-1301	9	.12E-1	.16E-1	.26E-2	.55E-3	.5E-3	.5E-3	.0	.0	.0	.0
1331-1341	6	.69E-2	.0	.0	.0	.0	.0	.0	.0	.0	.0
1343-1401	10	.46E-2	.0	.44E-3	.92E-3	.0	.0	.0	.0	.0	.0
1403-1421	10	.11E-1	.25E-2	.44E-3	.46E-3	.0	.0	.0	.0	.0	.0
1529-1541	7	.11E-2	.21E-2	.0	.0	.0	.0	.0	.0	.0	.0
1543-1601	10	.60E-2	.73E-3	.23E-2	.0	.0	.0	.0	.0	.0	.0
1603-1619	9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1705-1721	9	.11E-1	.0	.0	.95E-3	.0	.0	.0	.0	.0	.0
1743-1755	7	.24E-2	.22E-2	.23E-2	.61E-3	.0	.0	.0	.0	.0	.0
1930-1940	6	.12E-1	.0	.68E-3	.0	.0	.0	.0	.0	.0	.0
1942-2000	10	.68E-2	.19E-2	.20E-2	.0	.0	.4E-3	.0	.0	.0	.0
2002-2020	10	.56E-2	.16E-2	.41E-3	.13E-2	.4E-3	.0	.0	.0	.0	.0
2024-2040	9	.28E-1	.53E-2	.85E-3	.45E-3	.2E-2	.4E-3	.0	.0	.0	.0
2042-2100	10	.18E-1	.22E-2	.0	.40E-3	.0	.0	.0	.0	.0	.0
2102-2118	9	.36E-2	.28E-2	.0	.22E-2	.0	.4E-3	.0	.0	.0	.0
2202-2220	10	.24E-1	.13E-1	.81E-3	.21E-2	.4E-3	.0	.0	.0	.0	.0
2222-2240	10	.32E-1	.11E-1	.41E-3	.17E-2	.0	.4E-3	.4E-3	.0	.0	.0
2242-2300	10	.51E-2	.19E-2	.20E-2	.0	.2E-2	.0	.0	.0	.0	.0
2302-2320	10	.10E-1	.51E-2	.12E-2	.0	.2E-2	.0	.0	.0	.0	.0
2322-2340	10	.21E-1	.58E-2	.0	.0	.0	.0	.0	.0	.0	.0
2342-2358	9	.34E-1	.52E-2	.45E-3	.0	.0	.5E-3	.0	.0	.0	.0

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AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0003-0019	9	.28E+2	.32E+2	.34E+2	.24E+2	.20E+2	.47E+1	.32E+1	.17E+1	.16E+1	.10E+1	.74E+0	.34E+0	.1E+0	.7E-1	.0
0043-0101	10	.25E+2	.30E+2	.33E+2	.23E+2	.20E+2	.46E+1	.30E+1	.16E+1	.14E+1	.95E+0	.69E+0	.28E+0	.1E+0	.5E-1	.3E-1
0103-0121	10	.24E+2	.29E+2	.32E+2	.22E+2	.19E+2	.44E+1	.30E+1	.14E+1	.14E+1	.93E+0	.65E+0	.29E+0	.1E+0	.4E-1	.0
0143-0201	10	.22E+2	.30E+2	.32E+2	.22E+2	.20E+2	.46E+1	.30E+1	.16E+1	.14E+1	.95E+0	.66E+0	.33E+0	.1E+0	.5E-1	.0
0203-0219	9	.25E+2	.31E+2	.32E+2	.23E+2	.19E+2	.48E+1	.31E+1	.15E+1	.15E+1	.93E+0	.68E+0	.35E+0	.2E+0	.4E-1	.0
0223-0241	10	.22E+2	.28E+2	.31E+2	.22E+2	.19E+2	.45E+1	.30E+1	.16E+1	.15E+1	.92E+0	.73E+0	.25E+0	.2E+0	.5E-1	.3E-1
0243-0301	10	.26E+2	.29E+2	.33E+2	.23E+2	.20E+2	.48E+1	.31E+1	.16E+1	.15E+1	.97E+0	.69E+0	.35E+0	.1E+0	.6E-1	.3E-2
0303-0321	10	.24E+2	.27E+2	.30E+2	.21E+2	.18E+2	.45E+1	.28E+1	.15E+1	.14E+1	.83E+0	.65E+0	.27E+0	.1E+0	.6E-1	.2E-1
0343-0401	10	.21E+2	.25E+2	.30E+2	.21E+2	.18E+2	.44E+1	.29E+1	.15E+1	.15E+1	.90E+0	.65E+0	.30E+0	.1E+0	.5E-1	.4E-1
0403-0419	9	.23E+2	.27E+2	.29E+2	.21E+2	.18E+2	.43E+1	.29E+1	.15E+1	.14E+1	.88E+0	.64E+0	.26E+0	.1E+0	.5E-1	.0
0443-0501	10	.25E+2	.26E+2	.27E+2	.19E+2	.16E+2	.38E+1	.26E+1	.14E+1	.14E+1	.80E+0	.60E+0	.28E+0	.1E+0	.5E-1	.0
0503-0521	10	.23E+2	.24E+2	.27E+2	.18E+2	.16E+2	.39E+1	.27E+1	.14E+1	.13E+1	.80E+0	.61E+0	.27E+0	.1E+0	.8E-1	.0
0543-0601	10	.22E+2	.25E+2	.29E+2	.21E+2	.19E+2	.46E+1	.30E+1	.16E+1	.16E+1	.98E+0	.75E+0	.37E+0	.13E+0	.9E-1	.7E-1
0605-0621	9	.25E+2	.28E+2	.32E+2	.23E+2	.22E+2	.53E+1	.34E+1	.18E+1	.18E+1	.11E+1	.83E+0	.38E+0	.18E+0	.1E+0	.9E-1
0623-0641	10	.23E+2	.26E+2	.30E+2	.21E+2	.20E+2	.49E+1	.33E+1	.17E+1	.16E+1	.97E+0	.73E+0	.40E+0	.20E+0	.1E+0	.6E-1

AVERAGING INT.(PST)	NO. OF SAMPLES	4.85	5.90	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00
0002-0018	9	.12E-1	.43E-2	.14E-2	.47E-3	.5E-2	.0	.5E-3	.0	.0	.0
0042-0100	10	.24E-1	.73E-2	.19E-2	.16E-2	.4E-3	.4E-3	.4E-3	.0	.4E-3	.0
0102-0120	10	.24E-1	.91E-2	.42E-2	.36E-2	.2E-2	.4E-3	.0	.0	.0	.0
0142-0200	10	.28E-1	.97E-2	.0	.0	.0	.0	.0	.0	.0	.0
0202-0220	10	.24E-1	.13E-1	.57E-2	.26E-2	.4E-3	.4E-3	.4E-3	.0	.0	.0
0222-0240	10	.35E-1	.75E-2	.36E-2	.15E-2	.4E-3	.4E-3	.4E-3	.4E-3	.0	.0
0242-0300	10	.34E-1	.45E-2	.57E-2	.15E-2	.0	.0	.0	.0	.0	.0
0302-0320	10	.28E-1	.13E-1	.22E-2	.19E-2	.0	.0	.0	.0	.0	.0
0342-0400	10	.18E-1	.10E-1	.24E-2	.14E-2	.1E-2	.4E-3	.0	.0	.0	.0
0402-0418	9	.33E-1	.61E-2	.0	.0	.0	.2E-2	.4E-3	.4E-3	.0	.0
0442-0500	10	.43E-1	.13E-1	.81E-2	.0	.36E-3	.4E-3	.0	.4E-3	.0	.0
0502-0520	10	.41E-1	.0	.17E-2	.14E-2	.32E-2	.7E-3	.1E-2	.7E-3	.0	.0
0542-0600	10	.52E-1	.29E-1	.87E-2	.24E-2	.27E-2	.2E-2	.3E-3	.0	.0	.3E-3
0604-0620	9	.72E-1	.32E-1	.41E-2	.75E-2	.2E-2	.0	.0	.0	.0	.0
0622-0640	10	.55E-1	.23E-1	.88E-2	.46E-2	.25E-2	.0	.0	.0	.0	.0

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AVERAGE DN/DR AT INDICATED PARTICLE RADIUS

AVERAGING INT.(PST)	NO. OF SAMPLES	.42	.52	.72	.95	1.18	1.40	1.65	1.88	2.22	2.55	2.90	3.22	3.58	3.90	4.25
0853-0909	7	.36E+2	.59E+2	.51E+2	.31E+2	.29E+2	.65E+1	.44E+1	.23E+1	.24E+1	.15E+1	.11E+1	.36E+0	.27E+0	.19E+0	.16E+0